Theory Informing Decision-Making on Outsourcing: A Review of Four 'Five-Year' Snapshots Spanning 47 Years

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Version: 11 September 2020

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ABSTRACT

This study investigates how researchers use theory for decision-making on outsourcing through a longitudinal systematic literature review covering four five-year intervals spanning 1965–2011. Each of the 249 retrieved papers has been categorised based on theory used, nature of literature review, research method, type of industry investigated, organisational functions, performance criteria and level of decision making. Notwithstanding a surge in academic writings on outsourcing, our analysis of the four periods shows that few papers contribute to theory or provide further insight into outsourcing. The focus of most papers tends to be on the practitioner's perspective with decision making shifting from mainly financial–economic and operational considerations to strategic, long-term and multidimensional criteria that are not necessarily linked to a particular theoretical stance. The findings also imply that a full account of theories, their application as well as systematic testing in the context of outsourcing decision making, is still needed for advancing such knowledge. However, the evidence also suggests that methods for decision making do not vary much between domains and functions, although there are some exceptions, such as R&D, logistics and public sector functions. This study also identifies a framework for future research into decision-making on outsourcing.

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ACKNOWLEDGEMENTS

During the initial stages of the research and the crafting of earlier versions of the manuscripts the contributions and support by Susan Ogden and Elizabeth Williamson are gratefully acknowledged.

1. INTRODUCTION

During the last decades an enormous body of knowledge has been created to support decision-making on outsourcing (as already evidenced by Beaumont and Kahn [2005]). Note that outsourcing in this paper is seen as either transferring internal capabilities to external suppliers or choosing external suppliers over internal departments; this is a relatively broad interpretation that also includes the more traditional make-or-buy decision[1]. More recently, questions are being raised regarding the effectiveness of outsourcing in terms of actual performance benefits; for example, Kinkel et al. (2008) observe that back-sourcing decisions are instigated by loss of flexibility, outsourcees becoming capacity bottlenecks, reduced quality and increased coordination costs, Dekkers (2011) questions whether implications for operations and supply management have been adequately considered, and Broedner et al. (2009) come to the conclusion that outsourcing has a adverse effect on labour productivity. Given these concerns and the corresponding evidence in academia and practice, if one were to investigate the reasons for the ineffectiveness of outsourcing, it could either be due to the less effective decision-making by practitioners or because of conceptualisations and methods provided by academics being based on incongruous use of theory for the initial (often strategic) decision-making process. In support of the former argument, some researchers (e.g. Bryce & Useem, 1998; Lazonick & O'Sullivan, 2000; Rappaport, 2006) have noted that increasing emphasis on performance drivers such as shareholder value may also have enticed practitioners to favour outsourcing. However, with regard to the latter argument (how academics have used available theory for investigating decisions on outsourcing and developing methods to support decision-making), very few studies exist till date. This theoretical lens is essential to understand the dynamics of outsourcing decisions in practice, how they emerge and are operationalised in different contexts, and their consequences for organisational performance over a period of time (following the generic comments about theoretical approaches by Feldman & Orlikowski [2011, p. 1240]). Hence, in the current paper, we try to fill this gap in literature by providing insight pertaining to how exactly decision-making on outsourcing from a theoretical perspective has developed over the last decades and to what extent theory formation relates to the signals of weaknesses surfacing, with the help of a rigorous and systematic literature review.

1.1 Research Aim

The endeavour to look at how theory has informed research on decision making for outsourcing follows the guidelines for literature reviews set by Arksey and O'Malley (2005), Cronin et al. (2008) and Tranfield et al. (2003). This systematic approach allows us to examine whether academics are 'inching towards theory' for outsourcing, in line with the generic proposition from Weick (1995) that research, however diverse it might be, adds somehow to the academic knowledge base. Specifically, our research focusses on the key review question: how the availability of theory has influenced studies into decision making on research. In this quest, our approach starts from the viewpoint of scientific rationality (Sandberg & Tsoukas, 2011, pp. 340–1) and the perspective of 'technological rules' (van Aken 2004; van Aken & Romme 2009); according to the latter perspective, methods should be derived from underpinning laws and theories, which could be considered the case for methods to support decision-making on outsourcing. Additionally, our longitudal approach spanning 47 years supports the systematic analysis of the development of academic thought; the rationale for this approach will be presented in Section 2. Therefore, this investigation sets itself apart from the sporadic narrative reviews by its systematic approach, the in-depth appraisal of academic literature and the longitudinal approach taken.

[1] Outsourcing may be considered a different conceptualisation different than make-or-buy. In the case of make-or-buy the capability for an activitiy is present in-house and externally available, too, whereas outsourcing considers the location of the activity (in-house or external). However, both consider activities to be performed in-house or externally; for this reason this review takes them as similar concepts, being aware of the difference. See also Section 4.1 Closer Look at Underpinning Theories.

Specifically, since the onus is on theory and practice for the (strategic) decision on outsourcing, the research addresses the following key questions for the critical review:

1. How did the theoretical view for decision-making on outsourcing change according to the retrieved publications over the timeframe considered? Have theories been reformulated to better reflect the effectiveness of decisions on outsourcing?
2. Based on the empirical evidence found in the selected publications, how did practice influence outsourcing decision-making theory? Do changes in practice sufficiently account for the changes in theory or have changes in theoretical foundations developed irrespective of practice? Conversely, is there any evidence of developments in theory having had an influence on the practitioners involved in decision-making on outsourcing?
3. Do the methods for decision-making effectively differ for different sectors (e.g. production, services, 'governmental')? Do the methods for decision making differ dependent on what is outsourced (for example, manufacturing, human resource management, information and communication technology)?

1.2 Scope and Outline of Report

Our systematic literature review adds an epistemological perspective to previous studies with regard to how theory is used to conceptualise studies about decision-making on outsourcing. Earlier literature reviews on outsourcing have looked at critiquing existing theories (e.g., Mahnke, 2001), generated classifications (such as Beaumont & Khan, 2005), aimed at generic overviews (for example, Hätönen & Eriksson[2], 2009 ; Kakabadse & Kakabadse, 2000) and addressed specific functions, such as human resources (Cooke et al., 2005), information technology (Lacity et al., 2010) and logistics (Akbari, 2018; Marasco, 2008; Razzaque & Sheng, 1998; Selviaridis & Spring, 2007); however, none of these have systematically looked at progressive insight related to theories, while considering a wide array of domains and functions. Others advocate specific theories, such as transaction cost economics (Lacity et al., 2010), without specifying how this is related to the unsuitability of other theories; in similar vein, Creon et al. (2017, pp. 41–5) create a contingency model for outsourcing based on four theoretical foundations, without any critical evaluation. From the perspective of searching for underpinnings, Marasco (2008, p. 142) states that greater emphasis is needed on the development of theory, constructs and conceptual frameworks for logistics outsourcing in order to build a conceptual foundation for subsequent empirical studies, without specifying a way forward. The notion that theoretical fondations should be considered more appropriately is also found in Stanko and Calantone (2011, p. 17), again providing limited guidance. In addition, Busi and McIvor (2008, pp. 188, 193) plea for the development of theory, while noting the general lack of reported theory, albeit they offer limited evidence for this position. All these writings intimate that a path needs to be set out for how appropriate theories are for outsourcing to arrive at constructs and conceptual frameworks for decision making on outsourcing. A systematic consolidation of extant literature will contribute to this quest, while also being an addition to the existing array of papers, in combination with the specific question this paper seeks to address; note that such supports Chatha and Butt's (2015, p. 672) call for investigating the role of outsourcing with regard to traditional competitive priorities, servitisation, innovation and product-service systems (identified by them as research opportunity 4A). Thus, this study aims at adding insight into the progression of theory and research on outsourcing while considering practice, commensurate with calls for such by existing reviews; and it aims at deriving guidelines for research into decision-making on outsourcing and potential directions for further research.

The remainder of the report is organised as follows. The second chapter explains the rationale for the systematic literature review and how it captures the progression of theory and its use. Subsequently, the third chapter presents the findings, first by period and then by four overarching themes. A fourth chapters follows, critically reviewing these findings and addressing them within the context of the review questions. We finally make recommendations for further research in the fifth chapter.

[2] Note that strictly speaking Hätönen and Eriksson's (2009) review is based on interviews, though they do not disclose how they arrived at data, conjectures and findings.

2. METHODOLOGY FOR THE REVIEW

The review followed a somewhat unusual approach to selecting studies from four periods of five years to understand better which practices recorded in studies were prevalent and how theories have informed decision making on outsourcing. This rationale is set out in the first section, followed by how studies were selected, and how data was extracted and analysed.

2.1 Rationale for Four Sets of Five-Year Intervals

The research is carried out by periodic reviews of the literature over a timespan of 47 years, searching for relevant publications in four sets of five-year intervals. The foremost reason for these four equally spaced time periods is that they follow on from key developments in the publication of theory relevant to decision-making on outsourcing:

- **1965–9**. The two mainstream theories available during this period are transaction costs (Coase 1937) and the economies of scale argument as related to the theory of the firm proposed by Penrose (1959, 1963).
- **1979–83**. Preceding this period, transaction cost economics was formulated by Williamson (1975, 1979) as a combination of microeconomic theory and management theories.
- **1993–7**. By this period, both the resource-based view (von Wernerfelt 1984), initially conceived as a method for the formation of corporate strategy by Rubin (1973), and the core competencies approach (Prahalad & Hamel, 1990) were added to the 'theoretical' repertoire for outsourcing.
- **2007–11**. While critiquing existing theories, Mahnke (2001) proposed evolutionary perspectives as being more appropriate for outsourcing, without equalling these to evolutionary economics.

This study anticipated that papers published within the four snapshots are likely to use the theories already developed and apply those to the outsourcing problems faced by different functions within industries that are grappling with challenges in outsourcing decision-making; note that this strategy of dividing the literature into periods was also used by Marasco (2008)'s review, albeit for a period of 18 years for the domain of logistics only.

In addition to the successive availability of theoretical developments, the choice of four evenly spaced time periods was a balancing act. First, we chose 1965 as starting year, because relevant publications (e.g., Culliton, 1942; Higgins, 1955) during the previous years were sparser. Second, we settled on five-year periods after the initial choice of three-year periods returned more erratic results in terms of numbers for specific periods. As our primary purpose was to distill relevant thoughts related to the use of theory, rather than capturing all papers on outsourcing, we decided to go with the five-year periods. Finally, in our opinion, the choice of discrete time periods avoids the 'boiling the frog'

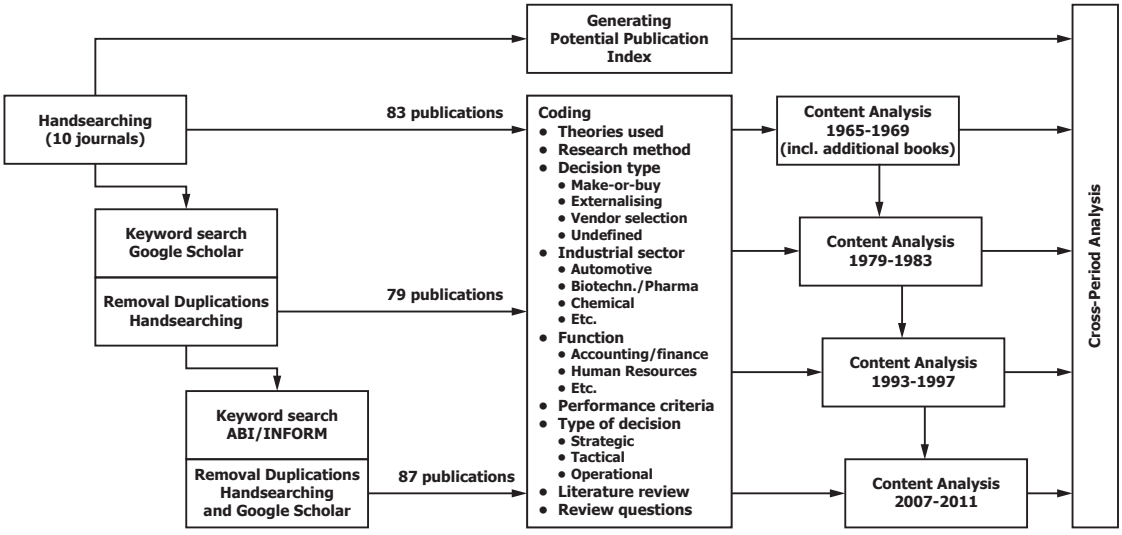

Figure 1: Process of systematic literature review.

Table 1: Overview of retrieved papers*.

Periods	1965–9	1979–83	1993–7	2007–11	Total
Journals					
Harvard Business Review	2	2	5	9	18
International Journal of Operations & Production Manag.		-	1	8	9
International Journal of Production Economics**		-	-	6	6
International Journal of Production Research	-	-	-	10	10
Journal of Information Technology			8	2	10
Journal of Operations Management		-	-	5	5
Production and Operations Management			-	1	1
Production Planning & Control			-	4	4
Supply Chain Management: An International Journal			-	5	5
Sloan Management Review***	-	1	8	6	15
Subtotal Journals	2	3	22	56	83
Databases					
ABI/INFORM	-	2	17	68	87
Google Scholar	2	3	15	59	79
Subtotal Databases	2	5	32	127	166
Total	**4**	**8**	**54**	**183**	**249**

* Note that first journals were hand-searched and that from the retrieved papers using the search engines Google Scholar and ABI/INFORM only the complementary publications have been listed. Furthermore, Google Scholar was looked at first and from the search in ABI/INFORM duplications with Google Scholar were removed. Some journals were only published in later periods.
** The 'International Journal of Production Economics' was known as 'Engineering and Process Economics' from 1976 to 1980 and 'Engineering Costs and Production Economics' from 1980 to 1991.
*** The journal 'Sloan Management Review' was published first as the 'International Management Review.'

syndrome. It would have been more difficult to discern clear patterns, by looking at a continuous flow of publications over the period 1965–2011. Hence, the four snapshots not only follow the theoretical frontier for outsourcing, but also allow us to better identify how theory is utilised by the steps we followed for searching relevant papers.

2.2 Selection of Studies

As a first step, see Figure 1, we searched ten journals in those four periods for papers relevant to outsourcing. Note that the outsourcing decision in earlier periods was known as the make-or-buy decision, and sometimes is still called so. The selection (see Table 1) included highly ranked operations management journals (*International Journal of Operations & Production Management; International Journal of Production Economics; International Journal of Production Research; Journal of Operations Management; Production Planning & Control; Production and Operations Management*), supplemented by specialist journals (*Journal of Information Technology; Supply Chain Management: An International Journal*) and management journals with a generic scope (*Harvard Business Review; Sloan Management Review*). These journals mostly appear in the rankings of Olson (2005), Soteriou et al. (1999) and Vokurka (1996), while some, such as *Harvard Business Review* and *Supply Chain Management: An International Journal*, have been added to broaden the focus. This search yielded 84 publications, displayed in Table 1. Note that some of the current top-ranking journals started publishing in later periods; for example, the first issue of *Journal of Operations Management* appeared in 1980. However, the number of papers retrieved by this search was disappointing, particularly for the two earlier periods.

To compensate for this lack of papers in the earlier periods and the lower than expected number of publications in the selected journals, the retrieval was extended to 'search engines'. This extension also mitigated the risk of skewing towards operations management or other specific domains, and compensated for the fact that some of the journals were not yet published in earlier periods. Thus, the original search was complemented by a keyword search in Google Scholar and ABI/INFORM, focusing on the same four periods. The results in Table 1 and the overlap between the two search engines imply that relying on a single search engine or database during a systematic literature review might result in too narrow a base of retrieved publications (this corresponds with Green et al.'s [2006,

Table 2: Overview of retrieved papers.

Source	Citation
Harvard Business Review	Bonabeau et al. (2008); Chesbrough and Teece (1996); Cross (1995); Gulati (2007); Hsieh (2010); Huber (1993); Kaplan et al. (2010); Kirby (2007); Kraljic (1983); Lacity et al. (1995); Lowry (1967); MacCormack and Forbath (2008); Mercer (1983); Nambisan and Sawhney (2007); Peisch (1995); Pisano and Shih (2008); Strack et al. (2008); Williams (1965).
International Journal of Operations & Production Management	Aláez-Aller and Longás-García (2010); Boulaksil and Fransoo, (2010); Broedner et al. (2009); Dekkers (2011); McIvor (2009); Moses and Åhlström (2009); Noke and Hughes (2010); Stevenson and Spring (2009); Yoon and Naadimuthu (1994).
International Journal of Production Economics	Bustinza et al. (2010); Büyüközkan, Feyzioğlu and Ersoy (2009); Chen and Wang (2009); Dias Ferreira and Laurindo (2009); Moon et al. (2011); Tate et al. (2009).
International Journal of Production Research	Bae et al. (2010); Chang et al. (2008); Klingenberg and Boskam (2010); Kumar et al. (2010); Lockamy III and McCormack (2010); McIvor (2010); Narasimhan et al. (2010); Schoenherr (2010); Weer-akkody and Irani (2010); Yao et al. (2010).
Journal of Information Technology	Apte et al. (1997); Clark Jr. et al. (1995); Cronk and Sharp (1995); Jurison (1995); Lacity et al. (2010); Lacity et al. (2011); de Looff (1995); McLellan et al. (1995); Michell and Fitzgerald (1997); Sobol and Apte (1995).
Journal of Operations Management	Handley and Benton (2009); Holcomb and Hitt (2007); Kroes and Ghosh (2010); McIvor (2009).
Production and Operations Management	Gray et al. (2009).
Production Planning & Control	Chen et al. (2011); Dabhilkar and Bengtsson (2009); Everaert, Sarens and Rommel (2007); Feldmann, Olhager and Persson (2009).
Supply Chain Management: An International Journal	Gotzamani et al. (2010); Kumar et al. (2009); Ordoobadi (2009a); Platts and Song (2010); Tsai et al. (2008).
Sloan Management Review	Amaral et al. (2011); Anderson et al. (1997); Bitran et al. (2007); den Butter and Linse (2008); Earl (1996); Eppinger and Chitkara (2009); Lacity and Hirschheim (1993); Lacity et al. (1996); McFarlan and Nolan (1995); Quinn and Hilmer (1994); Shpilberg et al. (2007); Teece (1981); Venkatraman (1997); Wood et al. (1996); Zirpoli and Becker (2011).
Google Scholar	Al-kaabi et al. (2007); Alaghehband et al. (2011); de Almeida (2007); Beha-ra et al. (1995); Bigelow and Argyres (2008); Bisman (2008); Bo-lumole et al. (2007); Bush et al. (2008); Busi and McIvor (2008); Carter and Yan (2007); Cheng and Lee (2010); Chou and Chou (2009); Coggburn (2007); Cui et al. (2009); van Damme and Ploos van Amstel (1996); Doney (1968); Espino-Rodríguez et al. (2008); Faisal and Banwet (2009); Fisher et al. (2008); Gewald and Dibbern (2008); Gietzmann (1996); Grewal et al. (2008); Gross (1966); Grover et al. (1996); Harrison and Kelley (1993); Hätönen (2009); Hätönen and Eriksson (2009); Hendry (1995); Howells et al. (2008); Hsiao et al. (2010); Hwang et al. (2007); Işıklar et al. (2007); Jiang et al. (2008); Kedia and Lahiri (2007); Khan and Schroder (2009); Koong et al. (2007); Kotabe et al. (2008); Kulkarni and Jenamani (2008); Kumar and Bisson (2008); Kurokawa (1997); Lacity et al. (1994); Lamminmaki (2008); Lei and Hitt (1995); Lin et al. (2010); Liou and Chuang (2010); Mahalik (2010); Manes et al. (1982); Marshall et al. (2007); Maskell et al. (2007); McIvor (2008); McIvor et al. (2010); Moschuris (2007; 2008); Moses and Åhlström (2008); Mudambi and Venzin (2010); Nam et al. (1996); Parmigiani (2007); Probert, Jones and Gregory (1993); Richmond and Seidmann (1993); Sanayei and Yazdankhah (2010); Sanayei et al. (2008); Sanders et al (2007); Sarin (1982); Shen and Yu (2009); Stank and Maltz (1996); Subramoniam et al. (2010); Tate et al. (2009); Thouin et al. (2009); Tiwana and Bush (2007); Tjader et al. (2010); Verwaal et al. (2009); Vitharan and Dharwakar (2007); Wadhwa and Ravindran (2007); Wang and Yang (2007); Willcocks et al. (1995); Woodside and Samuel (1981); Yang et al. (2007); Young (2007).
ABI/INFORM	Aertsen (1993); Alewell et al. (2009); Araz et al. (2007); Assaf et al. (2011); Aydin and Bakker (2008); Benamati and Rajkumar (2008); Balakrishnan (1994); Bhagat et al. (2010); Bidwell (2010); Brown (2010); Campbell (1995); Cappelli (2011); Cariou and Wolff (2011); Carlsson and Johansson (2011); Chakrabarty and Whitten (2011); Charles and Cloete (2009); Chandraprakaikul et al. (2010); Chiang et al. (2010); Chien et al. (2010); Choi et al. (2009); Cong et al. (2008); Dale and Cunningham (1983); Deavers (1997); Dev et al. (2011); Dobrzykowski et al. (2010); Elfring and Baven (1994); Foxx et al. (2009); Galanaki et al. (2008); Gorla and Lau (2010); Goldsmith (1994); Gray et al. (2009); Grover and Teng (1993); Gupta and Zhender (1994); Hafeez et al. (2007); Hesketh (2008); Hsu and Hsu (2008); Hunter and Hall (2011); Jantunen et al. (2009); Jauch and Wilson (1979); Jonash (1996); Kant and Young (1994); Kara (2011); Koli (2010); Kumar and Kopitzke (2008); Kwak and Whang (2008); Laios and Moschuris (1997); Lee and Walsh (2011); Li (2011); Li et al. (2009); Liao et al. (2010); Liu and Nagurney (2011); Maltz (1994a, b); Maltz and Ellram (1997); Maltz et al. (1993); Marsh (2009); McKenna and Walker (2008); McIvor et al. (1997); Mello et al. (2008); Merino and Rodríguez (2010); Moschuris and Kondylis (2007); Nuñez (2009); Olson and Wu (2011); Ordanini and Silvestri (2008); Ordoobadi (2009); Padmanabhan (2007); Pai and Basu (2007); Perçin (2008); Poppo and Zenger (1995); Quraeshi and Luqmani (2007); Rao and Young (1994); Ray et al. (2008); Ruffo et al. (2007); Sohail (2011); Stafford (2011); Stanko and Calantone (2011); Su et al. (2009); Teirlinck, Dumont and Spithoven (2010); Tsai and Lai (2007); Ulbrich (2009); Varadarajan (2009); Ventovuori (2007); Wang et al. (2008); Weimar and Seuring (2009); Welborn (2007); Willcocks (1995, 2010); Xiao et al. (2007); Zhao and Chen (2010).

p. 107] remark about using at least two databases). For the search we used the Boolean expression: "decision-making" AND ["outsourcing" OR "make-or-buy"]. We then checked the returned results by title and abstract, followed by the article content. Duplications were removed from the retrieval of the databases, so that only additional papers to the ones initially found in the journals remained. Similarly, duplications found between Google Scholar and ABI/INFORM (such as Bisman, 2008; Moses & Åhlström, 2008) were also eliminated. This process resulted in 166 papers in addition to the ones found during the search of the ten journals (see Table 1), being pluralistic in domains and methods (seen by Jackson [1999] as advantageous to theory and practice). The use of search engines for retrieving all relevant papers during the periods was justified, given the number of additional articles uncovered by adopting this incremental search approach.

2.3 Extraction of Data and Analysis

After the selection process, retrieved papers (see Table 2) were recorded in a spreadsheet for analysis. Each paper has been categorised against a set of criteria including: theories used; nature of literature reviews; (empirical) research methods used; types of industry investigated; organisational functions covered; performance criteria focused on; and level of decision making (strategic, tactical or operational). Every entry was checked by at least two researchers and several cross-checks have been carried out during the categorisation and the evaluation of the individual papers to ensure consistency (originally, two more researchers were involved). This evaluation has resulted in findings related to the specific time periods, particularly themes arising from the reviewed literature (use of theories versus type of literature review; use of research methods versus type of theories used; functions outsourced; performance criteria versus level of decision making). What we have not done, is compensating for authors that have generated a multiple of related papers (e.g., Lacity et al., 1995, 1996; Maltz, 1994a, 1994b); neither have we avoided bias caused by publications generated by individual researchers who might have a particular approach to outsourcing (for example, Kumar & Kopitzke, 2008; Kumar, et al., 2009; McIvor, 2008, 2009, 2010). Building on the categorisation, the next chapter describes the findings from the evaluation of individual papers in the context of the specific time periods.

3. RESULTS OF ANALYSIS

Based on the retrieved studies in Table 2 we undertook an analysis of the number of publications and their contents. Manifest was the number of publications considerably increasing over time; iths is looked at the first section. Next we looked at the specific temporal intervals in four subsequent sections. The chapter is concluded by some observations about shifts in practice that could be derived from the retrieved studies in the four time periods.

3.1 Increasing Number of Publications

As noted in Table 1 in the previous chapter, the number of publications addressing decision-making on outsourcing increases during the later periods; particularly, the period 2007–11 raises questions about the surge in interest in the subject. Some might attribute this phenomenon to the growing interest among academics into investigating decision-making on outsourcing. However, a more blurred picture emerges when taking the 'publication potential' into account, given that most of the journals in our sample were not available during the first time frame. This analysis is further substantiated in Table 3, which displays the relative availability of issues for each journal in each period as a proxy for the opportunities to publish (taking all years and issues in the first period that the journal was available as 100%). It leads to the conjecture that the opportunities to publish already explain a

Table 3: Publication potential of journals.

Journal	1965–9	1979–83	1993–7	2007–11
Harvard Business Review	100	130	130	252
International Journal of Operations & Production Management		60	400	400
International Journal of Production Economics*		100	217	6
International Journal of Production Research	-	-	-	10
Journal of Information Technology			8	2
Journal of Operations Management		-	-	5
Production and Operations Management			-	1
Production Planning & Control			-	4
Supply Chain Management: An International Journal			-	5
Sloan Management Review**	-	1	8	6
Total	**4**	**8**	**54**	**183**

* The 'International Journal of Production Economics' was known as 'Engineering and Process Economics' from 1976 to 1980 and 'Engineering Costs and Production Economics' from 1980 to 1991.
** The journal 'Sloan Management Review' was published first as the 'International Management Review.'

nine-fold increase for academics to disseminate results from research on outsourcing; in conjunction with the results for hand-searching journals, that still shows an increased academic interest, although not as dramatic as might be derived in the first instance from the absolute figures in Table 1. Reasons for the increase in publications could be that academics are seeking to produce more articles, driven by periodic assessments of research (for example, Research Assessment Exercise 2001 [e.g. Geary et al., 2001], Research Assessment Exercise 2008 [e.g., Kelly et al., 2009; MacDonald & Kam, 2007] and reviews in general [Johnston, 2005]), and promotional criteria for academics (see Wood, 1990). Through our study, we hope to shed some light on this aspect, after presenting more details on the selected publications.

3.1 Period 1965–9

Since little seems to have been published during 1965–9 about decision-making on outsourcing, or make-or-buy as it was called then, the question emerges whether an alternative source other than conference proceedings or archival research might provide further information. To this purpose, textbooks on operations management have been consulted, specifically those found in the University

Table 3: Overview of textbooks for period 1965–78 (in chronological order).

Book	Criteria	Methods	Perspective
Olson (1968, pp. 16–7)	Degree of utilisation as determinant for make-or-buy (cost implicitly mentioned).	-	Role of purchasing department as decision maker.
Buffa (1969, pp. 172–7)	Cost (incl. all necessary costs). Quantitative: • incremental cost • idle facilities. Qualitative: • product quality • patents • skills • long-term effects. Other factors (external supply, flexibility, seasonal demand, reliability).	Cost calculation.	Minimisation of cost.
Broster (1971, pp. 69–71)	-	-	Make-or-buy as investment decision.
Chase and Aquilano (1973, p. 94)	Cost.	Opportunity cost.	Decision as make, buy or lease.
Constable and New (1976, p. 44)	Cost	-	Make-or-buy decision is with purchasing department. Investment as policy.

of Glasgow Library. Whereas many books on operations management in the era only address supply for firms by paying attention to inventory levels, only five books found mention in more detail the make-or-buy decision. These books were drawn for the period 1965–78, under the assumption that books take longer to be published and can be slightly behind with insight; also, the number of qualifying textbooks was low. The review of the five textbooks in Table 4 provides additional insight into the prevailing perspectives on the make-or-buy decision for the first period.

However, from the two academic papers retrieved through Google Scholar some inferences can be drawn. Doney's (1968) work focuses on uncertainty surrounding the decision-making, but some interesting views appear, particularly in the example used. Whereas the generic approach of his presentation is directed towards annual expenditures for outsourcing, he introduces the uncertainty of the forecasted production level (in his paper named activity level) as a determinant for the make-or-buy decision. On closer inspection, it seems that the overall in-house manufacturing cost increases rather than decreases, contrary to what should be somehow expected. More interestingly, he mentions that all costs are estimates (ibid., 32), calling for caution. On the same page, he assumes that overhead costs remain at the same level. This leads to conclude that Doney's paper may not paint an accurate picture of representative data for the make-or–buy decision. In the same period, a quite unexpected contribution arrives from Gross (1966). He clearly addresses multi-criteria decision-making, albeit that it is directed at insourcing; in his view, growing firms might need to consider what we call now insourcing once they reach a production level that warrants that the costs of in-house manufacturing are lower than purchasing the goods. Nevertheless, the wide range of criteria introduced also underlines that such decisions should not just be based on cost considerations. However, both publications appear in accounting journals, probably indicating that the decision for outsourcing resided mostly in the financial-economic domain; note that at the time financial decision-making and strategic planning were intertwined (de Geus, 1999, pp. 53–6).

However, looking at all publications retrieved from this period in more detail, the dominant financial-economic perspective is not the only one; see Table 5. In this respect all publications take minimising cost as point of departure, albeit Broster (1971, p. 69), and Constable and New (1976, p. 44) view the reduction of cost through outsourcing as an investment decision. In addition, Williams (1965) treats the make-or-buy decision from an investment perspective in emerging countries, which may be one of the first publications to address offshoring. Nevertheless, that more criteria than financial-economic ones play a role is only mentioned, and this is meant literally, by few (Buffa, 1969, pp. 172–7; Gross, 1966). Furthermore, the make-or-buy decision is seen as a strategy for workload control (Lowry, 1967; Olson, 1968, pp. 16–7). Also, noteworthy is that two textbooks (Constable

Table 5: Overview of periods with dominant journals, domains covered, perspectives and additional notes.

Periods	**1965–9**	**1979–83**	**1993–7**	**2007–11**	**Total**
Number of publications	4 (+ 5 books [Table 4])	8	54	183	249
Dominant journals*,**	HBR (2) AR (1) MA (1)	HBR (2) IMM (2) AR (1) JPMM (1) LRP (1) SMR (1)	JIT (8) SMR (8) HBR (5) IJPDLM (3)	HBR (10) IJPR (10) COR (8) IJOPM (8) SOIJ (8) IJPE (6) SMR (6) JOM (5) SMR (5)	HBR (19) SMR (15) IJPR (10) JIT (10) IJOPM (9) COR (8) SOIJ (8) IJPE (6) JOM (5) SCMIJ (5)
Other journals			30 publications in 26 journals.	118 publications in 91 journals.	149 publications in 105 journals.
Domains covered***	• Production and assembly (3 journal articles and 5 books) • Undefined (1)	• Production (4) • Logistics (1) • Maintenance (1) • Public sector (1) • Other (3) • Undefined (1)	• Information and commu-nication technology (25) • Production and assembly (14) • Logistics (10) • Maintenance (3) • Public sector (1) • Other (6) • Undefined (9)	• Production and assembly (49) • Information and communication technology (42) • Logistics (20) • Human Resources (9) • Public sector (6) • Maintenance (4) • Accounting and finance (3) • Other (43) • Undefined (34)	• Production and assembly (71) • Information and communication technology (67) • Logistics (31) • Public sector (12) • Human resources management (9) • Maintenance (8) • Accounting and finance (3) • Other (50) • Undefined (45)
Perspective	• Make-or-buy as purchasing decision or investment decision. Other factors mentioned. • Make-or-buy decision driven primarily by operational perspectives.	• 'Operational' view continues. • Propositions for strategising. • Proposition for outsourcing services.	• Strategy as context for decisions on outsourcing takes hold.	• Permanence of strategic view. • More prominent place for risk. • Backsourcing (aka insourcing or re-outsourcing) studied. • More concerns about long-term effects.	
Notes	• Gross (1966) proposes that make-or-buy decision is related to growth of firm.	• Kraljic (1983, p. 116) argues that manufacturing firms should elevate their purchasing function's role to supply management role. • Jauch and Wilson (1979, p. 61) contend that make-or-buy decisions carry significant implications for firms at strategic level and, hence, should not be relegated to purchasing managers. • Outsourcing support functions and processes, called services, proposed by (Manes et al., 1982).	• Lacity and Willcocks (1996) find that both firms that outsource and those that do not outsource face challenges. • Gietzmann (1996) proposes that traditional accounting methods for make-or-buy decision should include cost of commitment for long-term relationships.	• More variety in proposed methods for decision making. • Inclusion of other theories of management but not leading to modification or refutal of existing theories.	

* (AR: Accounting Review; COR: Computers & Operations Research; HBR: Harvard Business Review; IJOPM: International Journal of Operations & Production Management; IJPDLM: International Journal of Physical Distribution and Logistics Management; IJPE: International Journal of Production Economics; IJPR: International Journal of Production Research; IMM: Industrial Marketing Management; JIT: Journal of Information Technology; JOM: Journal of Operations Management; JPPM: Journal of Purchasing and Materials Management (in later periods called Journal of Supply Chain Management); LRP: Long Range Planning; MA: Management Accounting; SCMIJ: Supply Chain Management: An International Journal; SMR: Sloan Management Review; SOIJ: Strategic Outsourcing: An International Journal).

** A specific journal paper might have covered more domains.

*** The label 'other' indicates the number of papers beyond our initial classification of domains and the label 'undefined' denotes that the paper does not refer to any specific domain for the decision about outsourcing).

& New, 1976, p. 44; Olson, 1968, pp. 16–7) allocate the make-or-buy decision to be the primary responsibility of the purchasing department, and Lowry (1967, p. 137) hints at a similar role for this department, but in the context of workload control. Combined with the accounting orientation of the academic papers, it seems that while there is a strong financial-economic perspective (for cost optimisation or rent on investment, may be led by the financial departments) in this early period, the decision for make-or-buy is driven primarily by operational perspectives (smoothening of resource allocation and purchasing departments being responsible).

3.2 Period 1979–83

Based on the eight articles that discuss the make-or-buy decision-making during 1979–83, the 'operational' view continues in practice, but also comes under pressure from a strategic doctrine; see also Table 5. Firms and their purchasing managers seem to be tackling the ever increasing cost pressures by systematising various purchasing practices and exploring domestic and foreign countries for low cost procurement opportunities, both in product and service domains (Dale & Cunningham, 1983; Kraljic, 1983; Mercer, 1983). For example, optimisation models are developed to aid purchasing functions in make-or-buy decision-making (e.g., Manes et al., 1982). Also, the information processes and decision stages followed by a typical purchasing committee for corporate purchasing agreements are captured by Woodside and Samuel (1981), while Sarin (1982) shows that the purchasing practices in developing countries like India were similar to what was being practiced in the West around the 1950s. Notwithstanding this 'operational view', Jauch and Wilson (1979, p. 61) contend that the make-or-buy decisions carry significant implications for firms at strategic level, and hence, should not be relegated to purchasing managers. They use the competitive advantage theory to explain how make-or-buy decisions can affect a firm's internal strengths and weaknesses, and consequently the strategic orientation of the firm. Therefore, they advocate the need for top management's involvement and a top-down approach to the make-or-buy decision-making, instead of simply leaving it to the purchasing function, which was the prevalent practice in most organisations before and during this period, according to them (and for part congruent with our findings for 1965–9). Similarly, Kraljic (1983, p. 116) argues that manufacturing firms should elevate their purchasing function's role to a supply management role and need to look outside their country of origin for global sourcing opportunities, both to address the intensified competition as well as to take advantage of low-cost supplier networks in foreign countries. Therefore, the recognition of the potential strategic impact of the make-or-buy decision implies that firms need to reconsider their view about the decision-making as being only cost-driven.

The shift towards the make-or-buy decisions as strategic in nature is only partly reflected in the theoretical development frontier. Vertical integration is still considered to be more efficient than sourcing from foreign suppliers in the case of multinational enterprises. In his work, Teece (1981) argues why multinational enterprises that are in search of raw materials and intermediate products in foreign markets should ideally opt for backward integration rather than sourcing from a foreign supplier. He links the transaction costs with the inherently incomplete nature of supply contracts and argues that it is relatively more efficient for the multinational enterprises to vertically integrate rather than deal with external suppliers. Differently, Kraljic (1983) develops a purchasing portfolio approach based on supply strategies followed by various European manufacturers during this period, while at the same time linking their strategies to theory on economies of scale, buyer-supplier relationships and supply-risk based theories. His paper therefore highlights the interdependence of theory and practice, and showcases how the existing theories influenced the purchasing strategies of various firms and vice versa. In addition, Mercer (1983) studies the outsourcing of public sector services, such as healthcare, health insurance, public relations and waste management, to private firms in many states across the USA. He attributes the increased levels of outsourcing to cost efficiencies derived through economies of scale, and also emphasises the need for fair and equitable contractual agreements and performance measurement systems to ensure effectiveness. Hence, the cost perspective embedded in economies of scale still dominates the formation of appropriate theory, while the focus is shifting to

competitive advantage, supply risks, contract theories, buyer-supplier relationships and performance measurement theories, paving the way for 'strategising' the make-or-buy decision.

3.3 Period 1993–7

The shift in focus is reflected in the increased academic interest for the period 1993–7, all together 54 publications, that mostly address the concerns in practice regarding how to follow a systematic approach to the (strategic) outsourcing decision (as the make-or-buy decision becomes known then). Topics explored during this period provide guidelines on (i) identifying the relevant factors to be considered while outsourcing (Elfring & Baven, 1994; Rao & Young, 1994), (ii) understanding the strategic implications of the decision (Willcocks et al., 1995), (iii) assessing the potential risks and benefits (Earl, 1996; Jurison, 1995) and (iv) on how to take these decisions systematically over multiple stages of the decision-making process itself (Grover & Teng, 1993; McIvor & Humphreys, 1997). Richmond and Seidmann (1993) show that for software development outsourcing contracts, it is beneficial to explicitly consider the linkages between design and development phase while designing the contract. According to them, the contracting framework used can significantly impact the price paid, the value generated and the completion probability of the project. Following the strategising of the outsourcing decision, papers in this period also highlighted the need to consider outsourcing as a strategic decision (Gupta & Zhender, 1994; Jonas, 1996; Maltz, 1994; Quinn & Hilmer, 1994) and to consider the outsourcing contracts as strategic alliances to derive the desired benefits from it (Clark Jr. et al., 1995; McFarlan & Nolan, 1995). Consequently, the papers from this period suggest that the signalling of a shift in focus during the previous period has reached the academic research domain and that finding practical methods related to contextualising the outsourcing decision has taken hold.

While this transition manifests itself in the writings, theory development starts building on the approach of core competencies that has become available. Examples of research building on the conceptualisation of core competencies are Clark Jr. et al. (1995), de Looff (1995), McIvor et al. (1997), and Probert et al. (1993), albeit all in very different ways. At the same time, the core competencies approach may suggest that it is better to outsource entire functions or processes, which are not core to a company's business; Lacity and Willcocks (1996) find out from their empirical research that, in the context of information and communication technology outsourcing, that companies which outsourced entire functions as well as those who did not outsource at all faced difficulties. Hence, outsourcing of selective processes while considering all relevant factors, rewards and risks may be appropriate. In this respect, Goldsmith (1994) focuses on steps required for evaluating outsourced vendors for software development and emphasises the importance of the need for congruence between what is bought and how it is evaluated; otherwise leading to mismatch and failure in the outsourcing decision. Related to this argument, in an interesting paper during this period, Gietzmann (1996) proposes how traditional accounting methods for make-buy decisions need to be modified to include cost of commitment while designing long-term relationships between buyer and subcontractor. This means that the arrival of the core competencies approach might have fuelled the development of the contextualisation of the outsourcing decision, and at the same time, doubts about the effectiveness of these decisions started to emerge.

Nevertheless, from the papers during this period that address the outsourcing decision-making for specific functions, further insights can be drawn regarding how the considerations for outsourcing decision-making may vary across functions. This is partly reflected in the wider range of journals in which publications were found. Most of the papers appeared in specific journals for information systems (*Journal of Information Technology*, *Journal of Management Information Systems*, *Journal of Strategic Information Systems*, *Journal of Systems Management*), journals for logistics and supply chains (*International Journal of Physical Distribution and Logistics Management*, *Journal of Business Logistics*, *Journal of Supply Chain Management*, *Logistics*, *Production and Inventory Management Journal*, *Transportation Review*) and in practitioner-oriented journals, such as *Harvard Business Review* and *Sloan Management Review*. Few papers were published in journals related to strategic management (*Academy of Management Journal*, *Long Range Planning*, *Management Decision*). With the exception

of one paper in the *European Journal of Operational Research* and one in the *International Journal of Operations & Production Management*, the mainstream journals related for operations management (*International Journal of Production Research*, *International Journal of Production Economics*, *Journal of Operations Management*, *Production and Operations Management*) did not publish any paper related to outsourcing decision-making during this period. But clearly, the focus of the papers in this period was on outsourcing of functions, such as information systems, warehousing, logistics, distribution and maintenance. This indicates that a wider scope of operational functions was considered, particularly, information systems and technology.

3.4 Period 2007–11

This trend for branching out becomes apparent in the final period: 2007–11 with its exploding number of publications on outsourcing: 184, more than thrice the publications of the previous period. A notable development is the breadth of journals that are now publishing on outsourcing. Of those reviewed, the majority lie outside the mainstream operations management publications targeted for review but many are still published in journals from the related operations disciplines (e.g., *Business Process Management Journal*, *European Journal of Operational Research*, *International Journal of Production Economics*, *International Journal of Project Management*), including supply chain management (e.g., *International Journal of Physical Distribution & Logistics Management*, *Logistics and Transport Review*, *Supply Chain Management: An International Journal*). The other articles in this time period are published predominantly in three categories of journals: (1) sector specific journals (e.g., *International Public Management Journal*, *Journal of Health Organization and Management*, *The Service Industries Journal*, *Transportation Journal*); (2) function specific journals, such as hurman resource management, finance, accounting and computing (e.g., *Australian Accounting Review*, *Computers & Operations Research*, *Strategic HR Review*, *The International Journal of Human Resource Management*); and (3) strategy and management journals (e.g., *Harvard Business Review*, *Sloan Management Review*, *Strategic Outsourcing: An International Journal*). This fanning out possibly indicates a wider range of domains, topics and issues being addressed building on the increased scope in the previous period.

Indeed, the 'adaptive radiation'[3] is reflected in the domains covered by the papers. Research papers relating to outsourcing in relation to logistics and supply chains still form the mainstream of publication in this time period (e.g., Chen, 2011; Gotzamani et al., 2010; Hsiauo et al., 2010; Kroes & Ghosh, 2010; Lockamy III & McCormack, 2010; Mello et al., 2008; Narasimhan et al., 2010; Schoenherr, 2010). Furthermore, information and communication technology outsourcing is also a popular focus for articles, many publications coming from the search engines (e.g., Bush et al., 2008; Hoffman & Ford, 2009; Koong et al., 2007; Olson & Wo, 2011; Willcocks, 2010), some focusing on information and communication technology offshoring (Cong et al., 2008; Pai & Basu, 2007), with only a few published in the targeted journals (e.g., Ferreira & Laurindo, 2009; Lacity et al., 2011). Also, there are a number of papers relating to outsourcing and innovation (e.g., Howells et al., 2008; Li, 2011; Nambisan & Sawhney, 2007; Stanko & Calantone, 2011; Teirlinck et al., 2010), new product development (e.g., Amaral et al., 2009; Bonabeau et al., 2008; Eppinger & Chitkara, 2009; Noke & Hughes, 2010; Zirpoli & Becker, 2011) and prototyping (Laio, 2010). The role of a hybrid strategy combining in-house development with outsourcing and/or partnership strategies (alliances and licensing) is emphasised by Noke and Hughes (2010). Given all these domains, it can be confidently stated that the outsourcing literature has vastly expanded from its more traditional focus on logistics, manufacturing and information systems in the last period.

Moreover, beyond the domains that are covered the research spans across more topics and theories, and starts including other theories of 'management'. In terms of subject areas, many articles focus on the weaknesses or challenges of outsourcing in terms of efficiency, productivity and other performance criteria such as risk (see Cappelli, 2011; Foxx et al., 2009; Gorla & Lau, 2010; Hsieh, 2010; Pai &

[3] The term 'adaptive radiation is taken from evolutionary biology where it indicates a process in which organisms diversify rapidly into a multitude of new forms, particularly when a change in the environment makes new resources available, creates new challenges and opens environmental niches.

Basu, 2007; Strack et al., 2008), with Welborn (2007) advocating use of the FMEA-based (failure mode and effect analysis) risk assessment technique for outsourcing. Theoretical developments point towards a need to integrate broader perspectives into outsourcing decision-making, for example, Bhagat et al. (2010, p. 316) advocate the role of a comprehensive and cohesive framework for value assessment of strategic outsourcing decisions. There is evidence of more experimentation in terms of other (multi-criteria, systematic) evaluation approaches coming into play in research papers, for example, the analytical hierarchy process method and its variations (see Choi et al., 2009; Grewal et al., 2008; Hafeez et al., 2007; Kwak & Whang, 2008; Tsai et al., 2008; Wang et al., 2007; Wang & Yang, 2008). In addition to the traditional theories discussed in relation to outsourcing, some articles make links to newer concepts such as knowledge management (e.g., Aydin & Bakker, 2008; Noke & Hughes, 2010). There is also evidence of a focus on how inter- and intra-organisational relationship factors impact on outsourcing decisions, drawing on 'intraorganisational power theory' (e.g., Chakrabarty & Whitten, 2011; Marshall et al., 2007; Ulbrich, 2009; Young, 2007), group decision-making logic (Cong, 2008), cross-functional involvement in outsourcing decision-making processes (Moses & Åhlström, 2009) and influence of national cultural stereotyping (Stafford, 2011). Therefore, the papers retrieved demonstrate the breadth and scope of the outsourcing decisions, not only with regard to functions and processes outsourced but also concerning its further integration into the overall context of strategic development of firms.

Concurrently, several papers focus on challenges and weaknesses of the strategic decision relating to post-outsourcing evaluation that may even impact on the reversibility of outsourcing decision. For example, Dekkers (2011) presents evidence of a lack of a systematic performance evaluation, whereas Weimar and Seuring (2009) point to the lack of metrics in post-outsourcing evaluation. Similarly, Foxx et al. (2009, p. 45) argue there is a need for a staged approach to outsourcing decision-making incorporating a pre-decision stage and an outcome evaluation. Also, the topic of risk arises in relation to what Gorla and Lau (2010) term the 're-outsourcing' decision when they investigate the negative effect of information and communication technology outsourcing. Kulkarni and Jenamani (2008) include risk evaluation in their case study of the outsourcing 'decision re-evaluation' in the automotive industry, presenting a strategic framework for the make-or-buy decision-making process. Marsh (2009) also discusses risk in a study of reverse outsourcing in the public sector in relation to information and communication technology services. The challenges of applying performance management techniques to reduce risk in outsourcing decision-making in relation to business processes is stressed by McIvor et al. (2009). In addition, the need for longitudinal research in this area is highlighted by the work of Moses & Åhlström (2008). From these writings it can be inferred that the last period is characterised by doubts towards the effectiveness of the outsourcing decision, particularly for its long-term effects.

3.5 Some Notes on Practice

Even though most retrieved studies are academic in nature, actual practices can be gleaned in the writings. With regard to when the make-or-buy decision received more attention in practice, there are differing accounts. Mercer (1983, p. 185) refers to the municipality of Little Rock (Arkansas) taking a buy-decision for custodial services in 1977, with the provider being less costly than the City Hall. Later in the same article (ibid., pp. 185–6), the case of a supplier for transit systems is mentioned, which started taking care of services for local governments in 1969. Furthermore, a remark by Gross (1969, p. 746) is made about the automotive industry where it seemed sensible that these firms focused on assembly only and purchased the majority of parts. For the case of information and communication technology, the decision by Eastman Kodak in 1989 is seen as heralding outsourcing (e.g., Lacity et al., 1995, p. 85). However, Apte et al. (1997, 289) position its roots in time-sharing and professional services in the 1960s; for example, the company Electronic Data Systems in 1963 is seen as paving the way for outsourcing (Lacity & Hirschheim 1993, p. 74), and Leonard (1992, cited by Cronk and Sharp, 1995, p. 262) refers to facilities management being outsourced in the same period. With regard to information and communication technology, Lacity et al. (1995, p. 87) mention the case of Energen already (unsuccessfully) outsourcing its telecommunications network

that connected the gas stations to its headquarters in 1985, whereas McLellan et al. (1995, p. 300) give the banking industry a leading role in outsourcing information technology during the late 1980s and early 1990s. This means that what is called now the outsourcing decision started its footing in the 1960s[4] and became more popular during the late 1980s; it should be noted that the evidence in this paragraph indicates a gradual transition spanning three decades rather than a revolution in practices.

[4] Note that Hätönen and Eriksson (2009, p. 144) position the history of outsourcing as part of corporate strategy back to the 1950s. However, the two sources they cite for this claim look at it differently. First, Dibbern et al. (2004, p. 7) also mention the agreement between Electronic Data Systems and Blue Cross of Pennsylvania in 1963 as starting point. Second, Quinn and Hilmer (2004, p. 44) attribute the rise of outsourcing to the disenchantment with the performance of many conglomerates and subsequent rise of more focused company concepts in the 1960s and 1970s; however, they do not state a specific instance or more specific timeline. Therefore, the claim of Hätönen and Eriksson (2009, p. 144) must be seen as a typo.

4. DISCUSSION OF FINDINGS FROM ALL FOUR PERIODS

After characterisation of the four periods in the previous chapter, the analysis extends to the theories being used before reflecting on the review questions posed at the beginning of this paper.

4.1 Closer Look at Underpinning Theories

Before analysing the four periods on this aspect, we have examined how publications defined the make-or-buy or outsourcing decision. First, it should be noted that only a small percentage of papers (12%) uses a formal definition of outsourcing; no definition of the make-or-buy decision was found in the set of retrieved sources. However, these definitions varied from taking a definition from a textbook in Boulaksil and Fransoo (2010) to using a source that used another source that did not define outsourcing (e.g., Bae et al. 2010, p. 328) to drawing on more generic papers (for example, Lockamy III & McCormack 2010, pp. 594–5). Only a study by Weerakkody and Irani (2010, p. 615) contained a somewhat inconclusive discussion of definitions. In addition, some works that use a definition of outsourcing focus only on supplier selection without considering the strategy of the firm or the capabilities of the process or departments involved, with Behara et al. (1995, p. 47) and Wadhwa and Ravindran (2007, p. 3725) being cases in point. This compelled us not to look at definitions, but actually consider the scope of the investigation. In the context of outsourcing decisions, three distinct types of decisions were used for the classification of the actual scope:

- Traditional make-or-buy decision. This decision retains the processes or departments for which a supplementary resource is sought. Such decisions could be instigated by capacity utilisation (for instance, Lowry, 1967), cost reduction (e.g., Dale & Cunningham, 1983), enhancement of capabilities (for example, Jantunen et al., 2009) or strategic considerations (by way of illustration, Lei & Hitt, 1995).
- Externalising internal processes or departments. When taking this decision, firms turn internal processes or departments into separate legal entities, which can develop independently their commercial opportunities; a case representing these studies is Elfring and Baven (1994).
- Vendor selection. In this case, the decision involves only which vendor, or supplier, will manage or supply processes without transferring personnel or assets from the original firm; these type of studies are illustrated by Araz et al. (2007) and Lin et al. (2010).

Note that ideally in both latter types of decisions also the internal capabilities should be considered for outsourcing to be effective. The classification of the scope of works as shown in Table 6 indicates that the externalising of internal processes and departments became topic of study in the third period 1993–7. In the same period there was also a lesser uptake of studies into vendor (provider or supplier) selection, but this became a more popular topic in the fourth period 2007–11; a possible explanation could be that the decision about what to source and what not to outsource was settled more or less, and therefore, attention could turn to vendor selection as more prominent theme. Hence, with vendor selection receiving more attention, the question emerges how not only topics of study related to outsourcing changed, but also whether this shift is associated with the use of theories.

This means that starting point for the further analysis of the retrieved papers is the availability of six theories that explain or underpin decision-making on outsourcing, see Section 2.1. These are complemented with a category 'multi-criteria decision-making'. It could be argued that multi-criteria decision-making is not a theory, but inherent to the outsourcing decision; nevertheless, we have classified it as a theoretical category since writings that do rely on multi-criteria decision-

Table 6: Scope of studies across the four periods.

Periods	1965–9	1979–83	1993–7	2007–11	Total
Make-or-buy decision	3	7	20	77	107
Externalising processes, departments, functions			21	32	53
Vendor selection	1	1	13	71	86
Undefined				3	3

Table 7: Sources for classification of theories.

Theoretical Perspectives	Principal Sources*
Economies of scale	• Economies of scale (Penrose, 1963)
Transaction cost economics	• Transaction cost (Coase, 1937) • Transaction cost economics (Williamson, 1975, 1979, 1998)
Resource-based view	• Resource-based view (Barney, 1991; von Wernerfelt, 1984) • Knowledge-based view (Grant, 1996)
Notion of core competencies	• Prahalad and Hamel (1990); Hamel and Prahalad (1994)
Contractual relationships	• Asymmetric information • Contractual obligation • Negotiation theory • Social contract theory
Supplier-buyer relationships	• Agency theory (see Eisenhardt [1989] for an overview) • Intra-organisational relationship theory • Principal-agent theory, includes game-theoretical concepts • Relational exchange theory • Social exchange theory (see Cropanzano and Mitchell [2005] for an overview)
Multi-criteria decision-making	• Analytical hierarchy process (Saaty 1986) • Fuzzy multi-criteria decision-making • Multi-attribute utility theory • Multi-criteria decision-making

* These sources (or kin) have been used to assess whether a specific research paper was informed by theory; a specific theoretical perspective was only allocated if the research methods (or propositions) were derived directly from sources related to the specific theoretical perspective.

making rarely refer to other theories, as is shown later. Table 7 displays which theoretical concepts and sources underpin these seven categories of theory for decision-making on outsourcing. Every paper was evaluated on whether it used theoretical concepts from theories relating to one or more of these categories to construct arguments (just referring to the theory was considered insufficient). If a specific paper used none of these categories, then it was classified as 'no theory'; this might mean that the author(s) used theory or theories not related to the classification of Table 7 (which was hardly the case). Based on this classification, Table 8 shows the percentages of papers that used the various categories of theories. There is some distortion because the practitioner-oriented journals have also been included. However, when these two periodicals are taken out of the equation, the analysis indicates that research has largely followed in the footsteps of these theories. It is noteworthy that the increased use of the analytic hierarchy process (and analytic networks process) has been observed in the papers retrieved, as well as the continued use of multi-criteria decision-making for outsourcing, something that the reviews by Hätönen and Eriksson (2009) and Kakabadse and Kakabadse (2000) seem to ignore. Additionally, the use of other theories, such as those describing buyer–supplier relationships and contractual relationships, does not appear in their analysis. Hence, the results of the review point in the direction of a wide range of theories used, beyond existing reviews, and confirm that the availability of theories has largely underpinned writings.

Apart from the generic multi-criteria decision-making approach that appears throughout all periods, three theories were referred to the most by far in the papers retrieved, making their initial appearance in different time periods. These theories are transaction cost economics, the resource-based view and the core competency approach. The most prominent theory used in all periods was transaction cost economics, appearing in 34% of the papers. Many of these papers are studies of specific industries or

Table 8: Overview of theories used by retrieved papers.

Periods	1965–9	1979–83	1993–7	2007–11	Total
Economies of scale		13%	9%	3%	5%
Transaction cost economics		25%	35%	34%	34%
Resource-based view			4%	25%	19%
Core competencies			11%	18%	16%
Contractual relationships		13%	9%	4%	5%
Supplier-buyer relationships			6%	7%	6%
Multi-criteria decision-making	25%	13%	9%	24%	21%
No use of theory	75%	63%	44%	35%	38%

Table 9: Use of multiple theories in papers.

	Transaction cost economics	Resource-based view	Core competencies	Contractual relationships	Supplier–buyer relationships	Multi-criteria decision-making
Economies of scale	9	3	4	4	3	-
Transaction cost economics		41	21	8	10	4
Resource-based view			21	5	4	4
Core competencies				3	3	7
Contractual relationships					2	-
Supplier-buyer relationships						-

sectors, such as Marshall et al. (2007) looking at the effects of outsourcing on the telecommunications industry and Bisman (2008) focusing on the Australian public sector. The resource-based view makes its appearance in the period 1993–7 and was included in only 4% of the papers; this is not entirely surprising since it was originally an approach for competitive and corporate strategy formation, particularly competitive heterogeneity (see Priem & Butler, 2001). It has gained importance in the last period, 2007–11, with the foci of papers on strategic issues (such as Dobrzykowski et al., 2010), on value co-creation (e.g., Bhagat et al., 2010), on resource-based perspectives for strategic sourcing (for example, Cheng & Lee, 2010) and on outsourcing evaluation (e.g., McIvor, 2009). As the third dominant perspective, the core competences approach emerged in the early 1990s but gained significant prominence only in the last period 2007–11 (18%). The emphasis in these papers is on the impact of outsourcing on the organisation (for example, Zirpoli & Becker, 2011) and placed in the context of other contemporary issues, such as globalisation (for instance, Eppinger & Chitkara 2009). A cautious supposition might be that the use of these three theories is linked towards more specialised papers, having a specific domain or topic to be investigated.

However, as can be already derived from Table 8, these theories are also used in combination; see Table 9. Particularly, transaction cost economics and the resource-based view featured jointly in 41 papers. McIvor (2009), for instance, makes the case that both theories inform the outsourcing decision; in addition, a strong link with the approach of core competencies is being made in quite a number of publications. This conjecture is not surprising, since a number of works (for example, Arnold, 2000) look at transaction cost economics, the resource-based view and the core competencies approach as being complementary concepts. Again, these papers feature specific domains, such as human resource management (Alewell et al., 2009; Chiang et al., 2010). However, there are also those who have stated that one of these theories is more appropriate for the outsourcing decision. A case in point is Espino-Rodríguez and Padrón-Robaina (2006), who argue that the resource-based view is a more appropriate theory than transaction cost economics. However, there is a clear lack of comparative studies, with only Dekkers (2011) making an attempt in this direction for transaction cost economics, resource-based view and the notion of core competencies, and Watjatrakul (2005), though latter not part of the retrieved papers, compares transaction cost economics and the resource-based view in the context of outsourcing decisions for information systems.

Furthermore, Alaghehband et al. (2011, p. 135) note that the inappropriate or inconsistent use of transaction cost economics can explain the often contradictory results across studies; to see whether that notion applies to our sample of papers, we have looked at how the three main theories have been utilised in the three studies. For transaction cost economics, Table 10a shows that all components of the theory are almost never fully brought into play. Some researchers concentrate only on the supply cost rather than the entire transaction costs, while the components of behavourial economics are almost entirely ignored throughout the set of papers. Hence, our analysis supports this stance of Alaghehband et al. A similar picture emerges from papers that use the resource-based view, as depicted in Table 10b. The distinction between resources and capabilities follows Amit and Schoemaker (1993). The contents of Table 10b again suggest that the limited use of constructs of the resource-based view might lead to disparate and irreconcilable conclusions in empirical results. The same is true for the approach of core competencies (see Table 10c), having components mostly based on King (1994), Prahalad and Hamel (1990) and Quinn and Hilmer (1994), as proposed by

Table 10a: Use of constructs from transaction cost economics*.

	Cost of supply	Transaction costs	Uncertainty	Asset specificity	Frequency	Bounded rationality	Opportunism/ satisficing	Total
Occurences**	16	33	18	34	3	6	7	
Most frequent combinations		•						10
		•		•				9
	•		•	•				5
	•							4
	•			•				4
		•	•	•				4
All other combinations***								19
Total								55

Table 10b: Use of constructs from the resource-based view*.

	Resources	Capabilities	Heterogeneity	Value of resources	Rents	Total
Occurences**	18	25	2	15	7	
Most frequent combinations		•			•	7
	•			•		5
		•		•		5
	•	•			•	5
All other combinations***						13
Total						35

Table 10c: Use of constructs from notion of core competencies*.

	Collective learning and information sharing across organisational boundaries	Synergy or knowledge skills	Adaptable, evolutionary, embeddable, sustainable practices	Unique and inimitable by others	Contributions to wider array of products and scope of end users	Well-defined focal area(s)	Capability and performance	Total
Occurences**	16	33	18	34	3	6	7	
Most frequent combinations		•						10
		•		•				9
		•	•	•				4
All other combinations***								19
Total								55

* The number of papers explicitly defining constructs of these theories used for creating theoretical arguments or informing empirical studies is lower than the number of papers that could be derived from Table 8. Because not all studies use all constructs, the most common combinations have been listed in the next rows. For instance, 7 publications use the combination of 'capabilities' and 'rent' (Table 10b).

** In the first row of each table the number of papers that mention a specific construct are listed. For example, out of 55 publications that use constructs of transaction cost economics, only 33 use 'transaction costs' (Table 10a).

*** Finally, all other combinations have been aggregated in one figure. A case in point is Table 10c, where other combinations than the most frequently used ones amount to 12.

Dobrzykowski et al. (2010, p. 110). Again, there is a strong emphasis on certain interpretations of this approach depending on the study or perhaps the author(s). Although some researchers, such as Dekkers (2011), Gray et al. (2009) and Marshall et al. (2007), point to the inadequacies of the theories, no studies in our sample seek to confirm or question theories, but rather take theories as definitive. Whereas critical reviews exist (e.g., Priem & Butler, 2001), hardly any extensions to the theories have been proposed based on empirical research into outsourcing. Hence, almost all academics undertaking research into decision-making on outsourcing in our sample fall short of revisiting or contributing to theory; even if they do use specific theories, they only use part of the constructs, again limiting their contribution to theory building.

4.2 Questioning Building of Theory

However, more interestingly, there is also a large cohort of papers that do not use any theory to systematically inform the research. As seen in Table 8 this percentage amounts to 38%; after correcting

Table 11: Relating literature reviews to research methods*.

	Propositional/ literature reviews	Statistical analysis	Quantitative modelling/ regression analysis	Qualitative analysis	Multiple case studies	Single case studies	Total
Hardly or none reviewed	13%	5%	5%	1%	2%	9%	10
Narrative overview	12%	7%	7%	2%	6%	10%	
Narrative review	6%	2%	4%		3%	2%	9
Systematic literature review	1%						4
Total	32%	14%	16%	4%	11%	21%	55

* The percentages in this table exclude entries in Harvard Business Review and Sloan Management Review. Furthermore, three papers used multiple research methods (Bisman, 2008; Hsiao et al., 2010; Moschuris, 2008).

for the two practitioner-oriented journals, it still accounts for 31%. To investigate this further, we developed a classification for the literature reviews in all papers:

- Hardly any or no literature review: if extant publications appear under this category, then the purpose is to pave the way for the arguments or constructs used for empirical research that are presented later. The research is not at all or at best marginally informed by literature.
- Narrative overview: this class of appraisals of preceding literature is inspired by what Green et al. (2006, p. 102) call 'commentaries'. While there is a more lengthy literature review than the first category, it is not certain whether the selection of sources is biased by the perspectives of the author(s), due to a limitation in either scope or depth.
- Narrative review: this type of review – called an 'unsystematic narrative review' by Green et al. (ibid.) – is comprehensive with sufficient attention to detail. Generally speaking, the appraisal is extensive and authoritative in terms of its construction and issues considered.
- Systematic literature review: these disclose how papers have been retrieved and which methodology is used for the appraisal (guidelines appear in Cronin et al. [2008] and Tranfield et al. [2003]).

These four classes are matched with five categories of research papers, based on purpose and research method (propositional, statistical analysis, econometric modelling/regression analysis, multiple case studies, single case studies). The results of this exercise – linking literature reviews to research methods – are presented in Table 11, which facilitates the analysis of how theory is used.

As can be seen from Table 11, the largest set of papers is classified as being propositional or as being a literature review (32%). Certainly, with the majority of publications becoming available in the last period, it might be expected that these propositional papers or literature reviews have benefited from articles that inform how to undertake literature reviews, as we have done here. However, this is apparently not the case; only three have been labelled as a systematic literature review and 12 more as a narrative review. A look at Table 12 indicates that narrative overviews have become more common ground, but at the same time it still shows that there is room for improvement in terms of 'quality'

Table 12: Classification of literature reviews related to periods (excluding Harvard Business Review and Sloan Management Review.

Periods	1965–9	1979–83	1993–7	2007–11	Total
Hardly or none reviewed	100%	60%	39%	32%	35%
Narrative overview		40%	39%	49%	47%
Narrative review			22%	17%	17%
Systematic literature review				2%	1%

of literature reviews. When examining Table 13, which displays the categories of theories against the research methods, three theories are used more in propositional publications than the other four: economies of scale, core competencies and contractual relationships; moreover, for all categories of theory, except multi-criteri decision-making, the number of propositional paper outstrips any empirical research method. Is this because academics are still trying to determine the appropriateness of these theories, even though they have been around for a while? Or are they still substantial gaps that have not been explored sufficiently? Even though individual propositional papers claim a contribution to knowledge, this continuing trend could not be explained from our content analysis of the retrieved

Table 13: Relationship between theories investigated and research methods.

	Propositional/ literature reviews	Statistical analysis	Quantitative modelling/ regression analysis	Qualitative analysis	Multiple case studies	Single case studies
Economies of scale	50%		25%	8%	17%	
Transaction cost economics	33%	14%	23%	3%	19%	8%
Resource-based view	27%	14%	24%		20%	14%
Core competencies	38%	8%	21%	3%	10%	21%
Contractual relationships	54%		8%		38%	
Supplier-buyer relation-ships	31%	13%	13%	6%	31%	6%
Multi-criteria decision-making	29%	12%	16%	2%	6%	33%

papers. Whereas studies into supplier-buyer relationships and multi-criterion decision-making use more often case studies, quantitative research seems to be drawing mainly from economies of scale, transaction cost economics and the resource-based view. This shows that while some theories are used more than others, specific theories are related to particular types of research methods. In addition, the approaches in single case studies for multi-criteria decision-making are often unique (e.g., Araz et al., 2007; Dev et al., 2011), which hardly allows generalisation. Hence, there is not only room for improvement in terms of literature reviews, but also for the generalisation of findings in individual papers and which gaps in knowledge need to be addressed.

Furthermore, there is strong representation of case studies, indicating that this is a favoured method for outsourcing research or that the discipline of outsourcing still needs to mature. Following Flyvbjerg's (2006, p. 230) thoughts, there are specific reasons why case studies should be employed in terms of the sampling strategy. According to this notion, the number of case studies is worrying in terms of contributions to knowledge. However, it might also be argued that qualitative studies (all three categories in Tables 9 and 11) are more appropriate for extracting sufficient detail related to the outsourcing decision. A specific meta-synthesis on this point, pooling case studies together, might be a way forward, but might be hampered by the diversity of the research in terms of specific research objectives and research methods. What stands out is the need for academics who are researching outsourcing to better consider which research method to use in terms of the contribution to knowledge building and profound literature reviews with regard to appropriateness of theory.

There is also a relationship between the theory used and the empirical research method (see Table 13), apart from the dominating conceptual papers and literature reviews. Articles that collected data and emphasised contractual relationships, multi-criteria decision-making and supplier–buyer relationships tend to employ the case study methodology (see, for example, Stevenson & Spring, 2009; Weerakkody & Irani, 2010). An exception is the study by Moon et al. (2011), where a modelling approach was applied to evaluate an alliance contract under price and cost uncertainties. Contributions associated with the core competencies approach rely mostly on case studies (e.g., McIvor et al., 2009; Probert et al,, 1993) and statistical analysis of surveys (for instance, Tjader et al., 2010). However, empirical studies in which the analysis is mainly based on transaction cost economics are more likely to draw on quantitative modelling and statistical analysis. Articles in this category include Apte's (1997) comparative international study of information and communication technology outsourcing decision-making in the USA, Japan and Finland, and Espino-Rodríguez et al.'s (2008) statistical study of the relationship between asset specificity and operational performance of in-house and outsourced operations. Surprisingly, qualitative studies, such as a study of information service outsourcing by Clark Jr. et al. (1995), use these theories the least, although there seems no apparent reason for this. Based on our findings, we propose that there is a need for alignment between the theory used and the proposed research method by academic researchers active in decision-making on outsourcing.

4.3 Changes in Functions and Criteria for Outsourcing

While the overall quality of theoretical contributions might be questioned, there has been a steady growth in the number of papers concerned with outsourcing particular functions (see Table 3). Papers from the earlier period (1965–9) were largely production related, keeping in mind that there were only few publications in this era. In later periods, the focus on outsourcing production and

assembly functions continued (38% for the period 1979–83; 26% for 1993–7; 27% for 2007–11). Largely, manufacturing is one of the dominant functions across the body of literature. The literature during the period 1993–7 gained momentum in focusing on the variety of different functions being outsourced. In particular, outsourcing of information and communication technology received more attention, while other functions, such as distribution, logistics, warehousing and maintenance, were also being examined by academics. The focus on a wider array of functions coincided with the introduction of the core competency approach into the body of knowledge. It might imply that the notion of core competencies may have stimulated the increase of academic literature on outsourcing functions and may also have led to an increase in the number of practitioners outsourcing specific functions. In addition to papers during the period 2007–11 that continued to address outsourcing related to information and communication technology, and logistics functions, there were papers which dealt with outsourcing decision-making for a variety of functions and processes, such as accounting services, healthcare services, human resources, occupational safety and health, quality testing and inspection, reverse logistics and R&D. Note that the earliest paper pointing to outsourcing the support functions and processes, called services, dates back to 1982 (Manes et al.), even though it is propositional in nature. While outsourcing related to the primary functions, such as production, assembly and logistics takes centre stage, a wider variety of support functions and processes have been investigated over time; it is apparent that the way outsourcing is carried out today is different from the original make-or-buy decision or sourcing from foreign suppliers.

At the same time that a wider scope of functions was being outsourced, the criteria for outsourcing began to shift too, albeit to a lesser extent. The findings in Table 14 and the descriptions in the textbooks in Table 4 illustrate that in the earliest time period, cost was by far the most dominant criterion for decision making – as indicated by 75% of the papers and the books in Table 4. By the latest period, cost still remained the criterion shaping decision making (highlighted by 75% of the papers); for instance, Carter and Yan (2007, p. 224). Quality is another criterion that has steadily grown to influence decision making throughout the periods; this is commensurate with the other trends of quality in practice (e.g., Powell, 1995, p. 15). Furthermore, the findings illustrate that there has been a transition from flexibility towards quality in terms of the level of influence they have had on outsourcing decision-making. Risk entered the equation during the period 1993–7 (for example, Deavers, 1997; Jurison, 1995; Kant & Young 1994; McLellan et al., 1995), though interpreted broadly across the studies; for instance, Deavers (1997, p. 507) associates risk with 'flexibility' and sharing across partners, and McLellan et al. (1995, pp. 312, 314, 316) with technological and financial risks. The wider scope of criteria, the broad interpretation of the new criterion risk and the increasing importance of quality issues to be considered reflect a shift, in line with the attention for capabilities and core competencies in firms during the same periods.

4.4 Looking Back at the Original Review Questions

This brings us to taking a closer look at the original review questions on how the availability of theory has influenced both research and, if possible, practice, which will serve as a template for the remaining discussion of findings.

Table 14: Performance criteria per period as relatively addressed by publications*.

Periods	1965–9	1979–83	1993–7	2007–11	Total
Cost	75%	100%	65%	75%	73%
Lead-time		13%	20%	16%	16%
Flexibility	25%	25%	26%	21%	22%
Quality	25%	25%	33%	42%	39%
Reliability		25%	9%	31%	26%
Other or undefined**	25%		46%	24%	28%

* Note that each publication could have addressed more performance criteria.
** The bottom row carries the label 'other or undefined', indicating that (i) other than the five performance criteria might have been addressed, such as risk, or (ii) the article did not address specific performance criteria.

Research Question 1: How did the theoretical view for decision-making on outsourcing change according to the retrieved publications over the timeframe considered? Have theories been reformulated to better reflect the effectiveness of decisions on outsourcing?

As evidenced by the retrieved literature in the earlier two periods, the strategic decision-making on outsourcing (albeit then called make-or-buy) was seen as part of financial–economic planning and as part of operational decision-making. In the later periods, three main theories and constructs have guided research about the outsourcing decision: transaction cost economics, the resource-based view and the approach of core competencies. However, surprisingly enough, it is the argument of economies of scale that is used least (beating the category 'contractual relationships' by one paper; see Table 8), although one would have expected it to play a major role in the discussion about outsourcing; except for the function information and communication technology, for which almost half of the papers use the proposition of economies of scale for underpinning the decision-making on outsourcing. It may well be that many see economies of scale reasoning hidden in the arguments underpinning transaction cost economics, the resource-based view and the notion of core competencies, and hence, not pay explicit attention to it; alternatively, it might be that the economies of scale argument disappeared to the background as the outsourcing decision became more strategic in nature.

Whereas the three main theories and constructs have gained popularity among academics despite the imperfect use, more technical papers such as Araz et al. (2007) and Ordoobadi (2009) rely on multi-criteria decision-making for supporting decision making by practitioners; moreover, our findings cast doubts to the extent why many papers are still written about multi-criteria decision-making. First, hardly any new criteria are added, with risk more apparently being included during the period 2007–11 by some (e.g., Olson & Wu, 2011; Perçin, 2008; Sanders et al., 2007). This would lead to the argument that (new) publications about multi-criteria decision-making are not really necessary, because new criteria are not coming into play and there is already abundance of methods. Second, it is not very clear why some studies do not consider the full range of criteria. For example, why is cost not really considered by studies such as Chen and Lee (2010) or why not the reliability of delivery by Liou and Chuang (2010). Third, very few methodological approaches have been added during the period considered. Noteworthy are the use of the analytical hierarchy process (e.g., Yang et al., 2007) and fuzzy logic (for example, Cong et al., 2008) emerging during 2007–11, but even then subsequent publications ignore previous publications from our sample on these methods (a case in point is Chen [2011]). Fourth, hardly any of the studies based on multi-criteria decision-making contain a rationale a priori with regard to why the proposed method is superior, but none that ex ante proves the 'performance' of the method comparatively. Fifth, in conjunction with the relatively large number of single case studies (see Table 13), this means that studies did not attempt to consider generalisation, but rather focused on solving a practical problem. This leaves others to guess why they should select the method for decision making from a specific paper above those of other publications. These five arguments in combination with the often poor literature reviews (94% classified as 'none' or 'narrative overview') can only lead to the conclusion that studies using multi-criteria decision-making methods have often poor theoretical groundings, with unsatisfactory justifications and no proven value for practice (in comparison to existing methods); yet, this method for decision-making is the base for 24% of the retrieved works in the period 2007–11.

Another 11% of the papers, see Table 8, utilised other theories. These theories, such as agency theory (e.g., Logan, 2000), mosty belong to the class of contractual aspects and social dynamics of inter-organisational relationships (derived from Nassimbeni, 1998). Furthermore, the only newly available perspective is that of Mahnke (2001), who advocates an evolutionary perspective in the sample that seems to be picked up only by Dekkers (2011, p. 957), but not elaborated on. Hence, based on our analysis the academic writings follow more or less the availability of theories, with three of them being most popular, and, at the same time, newer avenues, such as evolutionary theories, are not really explored.

Review Question 2: Based on the empirical evidence found in the selected publications, how did practice influence outsourcing decision-making theory? Do changes in practice sufficiently account for the changes in theory or have changes in theoretical foundations developed

irrespective of practice? Conversely, is there any evidence of developments in theory having had an influence on the practitioners involved in decision-making on outsourcing?

The popularity of using specific theories for outsourcing and research into outsourcing corresponds possibly with the mindset at the end of the 1980s and beginning of 1990s, when shareholder value became the priority of many boards and management teams (see Lazonick & O'Sullivan, 2000). A publication such as Linder et al. (2002), not part of our retrieval process, expresses this perspective very well. Although counter-arguments are provided by Broedner et al. (2009) that expected productivity improvement might be disappointing. Also, the operational challenges from the strategic decision on outsourcing are often underestimated (see Dekkers, 2011). Hence, it might be indeed the return-on-investment but not of the decision to outsource, rather the return-on-assets in terms of shareholder value (see Rappaport, 2006) that has greatly popularised outsourcing among managers.

This could also be related to strategic decision-making moving away from its strategic planning perspective as being a pure financial-economic decision in the 1960s and 1970s next to the operational view in the same period (the outsourcing decision being the remit of the purchasing department by some). This perspective is clearly evident in the papers found in the first two periods. As mentioned before, this has been clearly noted by de Geus (1999), albeit his work concentrates on strategic planning itself. The gradual shift is also supported by the conjecture that the strategising of the make-or-buy decision spans three decades, with its roots in the 1960s (Section 3.5). This implies that the notion of core competencies is clearly more oriented at strategic decision-making by managers rather than being theory led, even though it has a clear relationship with the resource-based view. However, despite the strategic orientation of the outsourcing decision, even from a financial-economic perspective, doubts are cast with regard to long-term benefits; for example, Pisano and Shih (2009) draw attention to outsourcing of non-core activities, which could erode competitiveness of firms. Hence, as outlined, new or more appropriate theory might be necessary to capture long-term effects, even though few have hinted in this direction.

More difficult to answer is how the body of knowledge by academics affected the actual decision-making. The relationship to practice is shown by some studies that propose methods based on action research; a case in point is the study by Kumar et al. (2010) about a manufacturer of industrial thermal transfer bench-top printers. Other studies have already elaborated on the strategic decision-making process in practice, such as Dekkers (2011) and Moses and Åhlström (2009). What can be noted is that the rationale for strategic decision-making is compliant with the explanatory power of the theories. Which came first, theory or practice, is like a chicken-and-egg question and bears resemblance to Galbraith's (1991) work on the development of economic theory in the socio–economic context. As noted in Sections 3.5 and 4.3, theoretical conceptualisations seemed to have followed practice more than leading it, although the adaptive radiation of concepts, such as core competencies, have had on influence on adoption by practitioners when incorporated in methods and tools for decision-making on outsourcing. Thus, it appears that the economies of scale argument based on further technological sophistication of information and communication technology, and the emergence of the core competencies approach might have fuelled academic interest into decision-making on outsourcing. Consequently, researchers developed methods based on theories to support this decision in practice; though, it should be noted that many of the methods developed are based on multi-criteria decision-making, thus restricted to optimisation rather than accounting for long-term effects.

Research Question 3: Do the methods for decision-making effectively differ for different sectors (e.g., production, services, 'governmental')? Do the methods for decision-making differ dependent on what is outsourced?

However, generically speaking, there is little evidence that the theories, applications and methods used within different sectors and different functions in organisations differ significantly. As indicated in subsections 1965–9 and 1979–83, articles found during these first two periods addressed the make-or-buy decision with the emphasis being on production (although Manes et al. [1982] address both goods and services in a propositional manner). In the periods 1993–7 and 2007–11, however, the articles retrieved covered a wide variety of topics: financial services (e.g., Jennings 1996); information

and communication technology (for example, Lacity et al., 1996); logistics (e.g., McGinnis et al., 1995; Hsiao et al., 2010); public sector (for instance, Scott, 1995); etc. Since transaction cost economics theory stretches back to the 1970s, one could infer that this was likely to have been stimulated by the emergence of the resource-based view and the notion of core competencies. These articles largely refer to similar theoretical frameworks and methods, and the application of these follow similar patterns as do the pitfalls, such as inadequate attention to the costs associated with contracting out and the fact that in some cases such costs can actually outweigh the benefits associated with outsourcing. These type of findings are common in the private sector as well as in governmental settings (for the latter, see Bisman, 2008; Kahn & Schroder, 2009; Young, 2007).

There is some evidence of variation in applications and methods being used in outsourcing of innovation, service-based functions, as might appear in logistics, and government functions. For example in innovation, the methods of decision making may not differ, but additional complexities associated with such decision making may need special attention. Project-specific partners' competencies as well as maintaining in-house competencies distinguish successes from failures in outsourcing innovation. Each innovation source also has specific success drivers. When a mature rather than novel technology is outsourced, the success drivers shift from project issues to manufacturing capability and system compatibility (Cui et al., 2009). Furthermore, Maltz and Elram (1997) propose a total cost of relationship approach for outsourcing decision-making in logistics and point out the differences with respect to make-or-buy decisions in manufacturing. Such a model is necessary, as logistics outsourcing involves interfaces with suppliers, providers and customers, and also requires parameters for measuring the quality of the service. Hence, value chain considerations from a service perspective come into play for outsourcing logistics functions (see van Damme & Ploos van Amstel, 1996) as a supplementary criterion. In addition, for the public sector the rules of decision making differ substantially from those in commercial environments (see Kahn & Schroder, 2009); and that calls for different approaches to outsourcing. That marginal variations in applications and methods occur in outsourcing of innovation, service-based functions and government functions compared to other domains, concurs more or less with Chatha and Butt's (2015, p. 672) assertion about servitisation, innovation and product-service systems, although they do not provide proof. Despite these three exceptions with slight deviations, the evidence suggests that applications and methods do not vary significantly between sectors and functions; this means that principally for outsourcing functions and domains are not to be considered a contingency (Fry & Smith 1987, p. 122) and studies do not have to rely on specific literature, but can consult the full range of studies on outsourcing.

5. CONCLUDING REMARKS

This finding that decision making on outsourcing does not vary significantly across functions, except innovation and service-based functions, and domains, excluding the public sector, was possible because of the systematic approach that is mostly lacking in other reviews; see Table 15 for a comparison with reviews on outsourcing. The approach for the literature review, based on evenly spaced periods spanning 1965–2011, generated insight that theoretical underpinnings and contributions to knowledge are limited by the design of the literature reviews and the research methodologies of studies into the domain of decision-making on outsourcing. Hence, the focus on the use of theories in this systematic literature leads to (substantial) differences with other reviews and some notable papers:

- The strategic context for the decision on outsouring was already proposed in the period 1979–83, rather than the mid-1980s others position as the time that the 'real interest in outsourcing occurred' (for example, Dibbern et al., 2004, p. 8). Also, these propositions happened far before others; for example, Quinn and Hilmer (1994, p. 44) attributed the emergence of outsourcing to the core competency approach. As seen from our analysis (Sections 3.5, 4.3 and 4.4) and commensurate with the narrative of Dibbern et al. (2004, pp. 7–8), the outsourcing of information systems might have served as trailblazer in practice and consequently for research. The first proposition by Jauch and Wilson (1979, 61) did not mention any theory at all, a point that Hätönen and Eriksson (2009, p. 145) have missed since they intimate that transaction cost economics triggered thinking about outsourcing. It should be noted that the term outsourcing in early periods was 'make-or-buy', about which the first publication in the English language seems to be dated 1942 (Culliton).
- Before the make-or-buy decision was strategised, it was viewed from a financial-economic perspective to solve operational challenges, such as workload, and to reduce costs; consequently, those taking the decision about make-or-buy were the purchasing departments and general management when investments were concerned. We have found no evidence in our retrieved papers and additional sources that during the early days economies of scale did drive outsourcing as Kakabadse and Kakabadse (1990, p. 671) state.
- Despite some (e.g., Hätönen & Eriksson 2009, p. 146) viewing the notion of core competencies accelerating the decisions on outsourcing, our evidence shows that transaction costs economics is the dominant theory, followed by the resource-based view (see Sections 4.1 and 4.2). However, the literature review also indicates that not all papers about decision-making on outsourcing draw on theories, where they should, and that literature reviews in published papers can be considered incomplete based on our classification (see Section 4.2).
- Hence, our analysis suggests strongly that research on outsourcing is 'incomplete' in two perspectives. The first is that because of inadequate literature reviews and incomplete use of theoretical constructs, studies about outsourcing are hardly advancing theoretical insight (see Sections 4.1 and 4.2). This finding corroborates the position of Sutton and Staw (1995, pp. 373–6) that citing references is not equal to theory, that 'quickly' moving from empirical findings to discussion of empirical results and that variables and diagrams do not constitute theory; it seems that authors of most studies on outsourcing seem insufficiently aware of these antitheses of research practice. Hence, our study shows that Weick's (1995) stance that all empirical research adds to knowledge may be risky, owing to a lack of appropriate literature reviews in most of the empirical papers we retrieved (see Tables 11 and 14) as well as to the incomplete use of theories. The second view is that advancements in theory for outsourcing are not made due to lack of comparative studies, whether it concerns theories or methods for decision making (see Sections 4.2 and 4.4). A search into some of these issues raised yielded only Watjatrakul's (2005) study as a comparative study for two theories.

The latter point suggests that there is considerable room for improvement in the way research on outsourcing is conducted, particularly with regard to the use of theory.

Table 15: Comparison of findings with other generic reviews on outsourcing.

	Current study	Dolgui and Proth (2013)	Hätönen and Eriksson (2009)*	Kakabadse and Kakabadse (2000)
Aim of review	Use of theories by studies into decision making on outsourcing.	Provision of vocabulary, state-of-the-art on global outsourcing, benefits and disadvantages of outsourcing.	Provision of vocabulary, state-of-the-art on global outsourcing, benefits and disadvantages of outsourcing.	Shifts in thinking and practices with focus on firms.
Articles reviewed	249 (protocol-driven). 345 (references cited).	15 (references cited).	138 (references cited).	227 (references cited).
Themes addressed	• Four periods (1965–69, 1979–83, 1993–7, 2007–11). • Theories.	• Terminology. • Outsourcing to emerging Chinese economy. • Benefits and disadvantages of outsourcing.	• Trends in outsourcing practices. • Why, what and how of outsourcing. • Underlying theories (transaction cost, transaction cost economics, resource-based view, core competencies)**.	• Advantages and disad-vantages of outsourcing. • Customer satisfaction. • Implications for human resource development. • Outsourcing of public ser-vices. Westernisation of keiretsu***.
Origins of outsourcing	• Make-or-buy decision (going back to Culliton [1942]). • Strategising of make-or-buy decision with Jauch and Wilson (1979) being the first publication. • 1963: Electronic Data Systems offering solution for data storage (investment in technology). • 1970s: Outsourcing appears low-cost industries, such as textiles and consumer electronics.	• 1970s: Outsourcing appears low-cost industries, such as textiles and consumer electronics.	• Outsourcing attributed to influence of transaction costs (Coase, 1937) and transaction cost economics (Williamson, 1975). • Late 1970s: concept used by manufacturing executives. • 1980s to early 1990s: phase of 'big bang' (cutting costs).	Hardly any deliberations.
Main findings for research	• Outsourcing models for decision making do not vary across functions and sectors. • Extensions of theories necessary to capture full impact of outsourcing on firms, particularly long-term effects. • Comparisons of predictive vaue of theories. • Justification of constructs used from theories needs better underpinning. • Performance criteria not used should be justified. • Evolutionary theories not deployed, but could provide predictive models.	• No attention paid to negative consequences of outsourcing (outsourcers, outsourcees). • Lack of research into medium-term and long-term impact.	• Co-existence of relational view and transaction cost theories. Further research: • Explanatory factors for successful and unsuccessful outsourcing. • Management of supply networks needs attention. • Size of firms and outsourcing. • Risks of outsourcing.	None discussed.
Main findings for practice	• Cost considerations prevail. • Necessity for considering long-term effects, even though not yet captured by theoretical approaches.	• Outsourcing practice only for widely available and mature technologies****.		• Though reductions of cost still hold sway, strategic considerations have come to fore. • Leading to changes in organisational forms and relationships with suppliers, for instance, westernisation of keiretsu**.
Notes		Theories mentioned, but no theoretical conceptualisations addressed.	Literature review based on interviews, but research method not disclosed.	Focus on practice, whereas theory used as 'ornament' at places.

* See footnote in Section 4.5 about the origins of outsourcing.
** Only these theories are discussed in the text, whereas a figure indicates other theoretical conceptualisations.
*** Note that Kakabadse and Kakabadse (2000) refer to interlocking business relationships and shareholdings as both 'keiretsu' and 'keiretsu'; the former spelling is the correct one, for example, see Dekkers and Bennett (2010).
**** These are called base technologies by Roussel et al. (1991).

5.1 Implications for Research

All the findings from our systematic literature review put together, while considering pluralism (Jackson, 1999), send out a signal to authors (and reviewers) that the theoretical underpinnings need to improve for the purpose of extending current theories for outsourcing and possibly generating new theory. Figure 2 presents an overview of how studies should account for our deliberations about theory informing decision-making on outsourcing; note that this figure complements the deliberations of Dubin (1976), Sutton and Staw (1995) and Weick (1995) how to build theory for applied domains and how to extract technological rules to inform decision making (van Aken, 2004; van Aken & Romme, 2009). The notable features of our proposed pathways for research into decision-making on outsourcing are:

- There is an eminent necessity to use theories, even for those studies that use multi-criteria decision-making. A considerable cohort of papers does not utilise any of the theories for outsourcing decision-making (see Section 4.1). Together with the group of publications that use multicriteria decision making without incorporating any theories, this accounts for about 50% of the retrieved papers. Given the availability of appropriate theories, new studies should include high-quality literature reviews to evaluate pertinent theoretical underpinnings; this is particularly the case for multi-criteria decision-making (see Table 16 for the classification of literature reviews against the categorisation of theories).
- New research should clarify why only partial constructs of theories are selected and also include deliberations about the wider implications for theory. In our sample of papers, when theories are used for investigating decision-making on outsourcing, only partial constructs of these theories were considered (see Section 4.1), limiting the implications of findings for confirming or extending the theoretical base (akin to Bacharach's [1989, p. 507] remarks).
- Hence, the quality of literature reviews needs to be improved. The scope of the literature reviews in our sample is relatively narrow, taking narrative reviews and systematic literature reviews as the standard. This is surprising given the enormous cumulative body of knowledge on outsourcing. This implies that extant papers in our sample possibly have not considered relevant, available papers in the literature review and for the design of the empirical study, which could be expected for informing empirical studies (see also Holton III & Lowe [2007, p. 303]). Note that incomplete literature reviews may also be caused by word limitations for the submissions to journals; such word limitations penalise unintentionally authors who go through the effort of reviewing the extensive literature on outsourcing akin the spirit of narrative reviews and systematic literature reviews. It also means that new research on outsourcing should follow the guidelines for high-

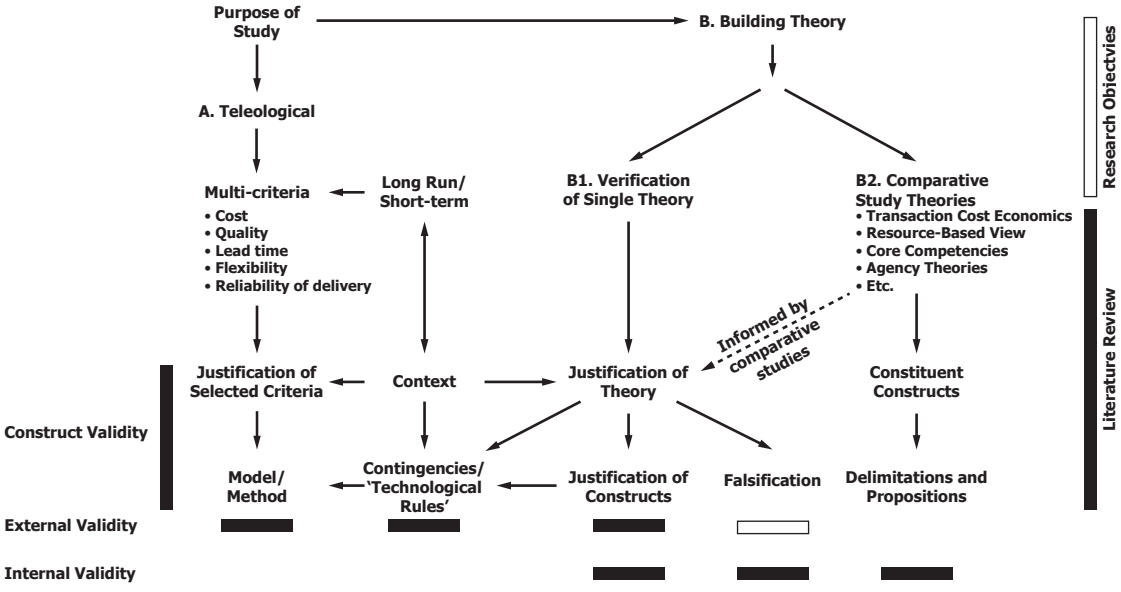

Figure 2: Pathways for research into outsourcing.

Table 16: Relationship between theories and classification of literature reviews.

	Hardly/None	Narrative Overview	Narrative Review	Systematic Literature Review
Economies of scale	8%	50%	33%	8%
Transaction cost economics	8%	62%	27%	2%
Resource-based view	6%	56%	35%	2%
Core competencies	8%	59%	31%	3%
Contractual relationships	8%	62%	23%	8%
Supplier-buyer relation-ships		63%	31%	6%
Multi-criteria decision-making	56%	38%	4%	2%

quality systematic literature reviews (e.g., Cronin et al., 2008; Green et al., 2006; Tranfield et al., 2003).

- As has become clear in Section 4.3 (and based on Table 14), the rationale for the selection of specific criteria for decision making needs to be included. This is not only hinting at some papers that only consider cost (e.g., Işiklar et al., 2007; Verwaal et al., 2009), but also at those that are excluding cost as criterion (for example, Cheng & Lee, 2010; McIvor et al., 2010). Rather than elaborating the selected criteria, authors should state why they have not selected all criteria for decision-making on outsourcing: cost, quality, lead-time, flexibility, reliability and risk.
- Particularly, for those studies that are developing methods for decision-making on outsourcing, comparisons need to be made with existing methods in literature a priori and ex ante. This point came to light particularly when reviewing articles based on multi-criteria decision-making. Often the studies on these methods are devised in such a way that do insuficiently account for the improvement they are to bring; if such methods do also not incorporate all relevant criteria (see previous point), then their relevance to both theory and practice should be doubted.

These points should not only be heeded by authors, but also by reviewers and editors, particularly, the use of theories, the systematising of literature reviews and the rationale for criteria.

5.2 Research Agenda

Not only can future research into decision-making on outsourcing benefit from the guidelines in the previous section, our study finds substantial gaps for building theory:

- No extensions of the theories have been proposed, neither do papers confirm the validity of the theories; in addition, there is very limited discussion about the validity and utility of theories (irrespective of the outlet of publication), noted generically for organisational theories by Bacharach (1989). For example, the validity of the resource-based view might take the notion of Lado et al. (2006) about its paradoxes as point of departure. It also indicates that the theoretical base for outsourcing should be advanced by future investigations, that extensions should be proposed and new theories brought into play.
- In this perspective, only one comparative study of relevant theories pertinent to outsourcing has been found in the sample of 249 papers. Hence, there should be more studies that compare theories on explanatory and predictive power for decision-making on outsourcing (following Bacharach's [1989, p. 510] and Fry & Smith's [1987, p. 130] more generic thoughts).
- Considering that conflicting results have been reported with regard to the effectiveness of decisions on outsourcing, it is time that scholars focus their attention to large-scale empirical validation of outsourcing decisions or analytical justification of outsourcing decisions under specific contexts or attempt to explain the outsourcing decisions using existing theories and specifically report if existing theories cannot possibly explain the choice (conform Hambrick's [2007] plea). This can potentially lead to better explanation of outsourcing choices and possibly lead to theoretical advancement of our understanding of outsourcing which should be beneficial to both academia and practice.

In addition to those theoretical gaps, some topics for further research have emerged from our exercise:

- The relationship between insourcing and growth of a firm has been suggested by Gross (1966), see Table 3, but needs further investigation. Also, life-cycle models for organisations, for example

Greiner (1998), have not been paying adequate attention to this phenomenon. Therefore, further research is required to understand the reversal of buying decisions when companies are expanding.

- From a theoretical perspective, evolutionary approaches should be investigated further as explanatory and predictive theory. Very few researchers into decision-making on outsourcing have mentioned it (e.g., Mahnke, 2001; see also Section 2.1 for theoretical perspective underpinning this research). It is proposed that the notion of organisational routines, derived from Nelson and Winter's (1982, 2002) work, should be amalgamated with evolutionary mechanisms akin to those proposed by Dekkers (2008); note that there is also a link with dynamic capabilities (Teece et al., 1997).
- There is a significant need to understand the long-term effects of the decision on outsourcing. Counter-evidence to the generally accepted benefits of outsourcing has sprung up during the last period, but seems to contradict other research. Hence, whether outsourcing is beneficial or detrimental to the long-term performance of organisations and governmental institutes requires more convincing research that considers both sides of the coin.

Perhaps, future research in these directions will overcome some of the pitfalls of outsourcing and will change perspectives of both academics and practitioners.

5.3 Managerial Implications

In line with Feldman and Orlikowski (2011), who emphasise the importance of theorising practice for the benefit of practitioners, we contend that the findings and insights from our study of outsourcing decision-making will help managers identify organisational levers for enabling change, while supporting and reinforcing those practices that are working. For example, our findings suggest that whereas the cost perspective dominates, it is this same perspective that causes detrimental effects, as evidenced by Dekkers (2011) and Broedner et al. (2009). The publications of Fan (2000), Gilley and Rasheed (2000) and Mazzawi (2002) point to the dominance of the cost perspective, and Görzig and Stephan (2002, p. 13) observe that firms overrate the advantages of outsourcing or undervalue the transaction costs; the latter two points are confirmed by Platts and Song (2010, p. 329). However, it should also be noted that Doney (1968, p. 32) already called for caution with regard to cost figures being estimates rather than being absolute; such is confirmed by Platts and Song (2012, p. 329) when they found that the cost of sourcing from China is underestimated in practice. Also, it is undeniably not a matter of simple vendor selection, implying that the outsourcing decision is definite before being taken, as suggested by Wadhwa and Ravindran's (2007) work. The counter-evidence in favour of regrets and backsourcing (e.g., Kinkel et al., 2008) certainly provides further arguments to the relatively low benefits or even detrimental effects of outsourcing. Hence, managers must not only take the outsourcing decision with restraint (see also Barthélemy, 2003), but also must account for long-term effects, whether or not theory building by academics has been adequate.

5.4 Some Final Thoughts

On the whole, the wide variety of applications, methods and propositional contributions caused an upsurge in writing about outsourcing, as noted in Chapter 2 of the paper; although initially this has possibly been attributed to more academics writing about outsourcing and pressures on academics to publish. We posit three more reasons that might have played a role in generating this increased interest in outsourcing:

1. The strategic role of the outsourcing decision moved from being an insignificant decision by operations management, purchasing departments and accounting departments, at best seen as an investment decision, to being placed in the wider context of managerial decision-making. Ubiquitously, this implies that a wider range of disciplines informed the decision. Also, at the same time, the domain of application has expanded from manufacturing to support functions, such as information and communication technology and human resource management, which in turn resulted in an increased interest by researchers (even though this was noted as early as 1979–83 in this paper). Moreover, the forming of relevant theory shifted from economists to

more general management scientists. Therefore, the increased variety of applications, domains and disciplines has certainly caused a larger body of knowledge to be created.

2. The integration of outsourcing decisions in managerial decision-making leads to a further quest to understand implications beyond the strategic decision itself. Evidence from the period 2007–11 certainly points in this direction. However, the search also unearthed that risks became associated with the outsourcing decision, such as uncertainty about the exact benefits, the detrimental implications for operations management and technological uncertainties, again leading to more studies.
3. Also, the increased popularity of the outsourcing decision as strategy for creating shareholders' value seems to be responsible for the increased interest by practitioners (see Lazonick & O'Sullivan, 2000; Rappaport, 2006) and reflects on the research undertaken. An article by Linder et al. (2002), not part of our retrieval process, expresses that perspective very well. The impact of outsourcing on company value can be found in the work of Bryce and Useem (1998), Hayes et al. (2000) and Jiang et al. (2007); however, the positive effect on shareholder value contradicts the detrimental effect on labour productivity, as found by Broedner et al. (2009). This indicates the controversial nature of the outsourcing decision.

These three reasons and the findings mentioned before should not be seen as sufficient explanation for the explosion of writings about outsourcing, but may serve as a starting point for further deliberations beyond this paper.

To conclude, this unique study not only provides an overview of the development of thought about outsourcing, it also shows how the academic focus has changed over time. In addition, it advocates that theoretical underpinnings of future research for decision-making on outsourcing should better account for findings in extant works, and that researchers in this domain are encouraged to undertake systematic literature reviews and may benefit from appraisals such as this one. Moreover, some current thoughts about long-term effects go way back to earlier periods, but seem to have been revived only recently as signals of weakness, whereas some of our findings give some background to their causes (practice focusing on shareholders' value, papers limitedly building on theories and the extant body of knowledge, no extension of theories to account for long-term effects, etc.).

Most of all, while not intended as such, the literature review reveals that outsourcing decisions are less favourable than perceived. That would also explain the more recent emergence of risk as a determinant in the research. However, practitioners seem to focus mostly on cost, whereas academic studies show the risks involved in this narrow interpretation and increasingly point to the adverse effects of outsourcing. Alluding to this perspective, Broedner et al. (2009, p. 144) cry out that outsourcing has been 'pushed much too far in general'. In combination with studies that have shown no, or even adverse, effects, our advice to practitioners and academics is: outsource with caution!

REFERENCES

Aertsen, F. (1993). Contracting out the Physical Distribution Function: A Trade-off between Asset Specificity and Performance Measurement. International Journal of Physical Distribution & Logistics Management, 23(1), 23–29.

Akbari, M. (2018). Logistics outsourcing: a structured literature review. Benchmarking: An International Journal, 25(5), 1548–1580. doi: 10.1108/BIJ-04-2017-0066

Aken, J. E., van,, & Romme, G. (2009). Reinventing the future: adding design science to the repertoire of organization and management studies. Organization Management Journal, 6(1), 5–12.

Aken, J. E. v. (2004). Management Research Based on the Paradigm of the Design Sciences: The Quest for Field-Tested and Grounded Technological Rules. Journal of Management Studies, 41(2), 219–246.

Al-kaabi, H., Potter, A., & Naim, M. (2007). An outsourcing decision model for airlines' MRO activities. Journal of Quality in Maintenance Engineering, 13(3), 217–227.

Aláez-Aller, R., & Longás-García, J. C. (2010). Dynamic supplier management in the automotive industry. International Journal of Operations & Production Management, 30(3), 312–335.

Alaghehband, F. K., Rivard, S., Wu, S., & Goyette, S. (2011). An assessment of the use of Transaction Cost Theory in information technology outsourcing. The Journal of Strategic Information Systems, 20(2), 125–138.

Alewell, D., Hauff, S., Thommes, K., & Weiland, K. (2009). Triggers of HR outsourcing decisions – an empirical analysis of German firms. The International Journal of Human Resource Management, 20(7), 1599–1617.

Amaral, J., Anderson Jr., E. G., & Parker, G. G. (2011). Putting It Together: How to Succeed in Distributed Product Development. Sloan Management Review, 52(2), 51–58.

Amit, R., & Schoemaker, P. J. H. (1993). Strategic assets and organizational rent. Strategic Management Journal, 14(1), 33–46.

Anderson, E., Day, G. S., & Rangan, V. K. (1997). Strategic Channel Design. Sloan Management Review, 38(4), 59–69.

Apte, U. M., Sobol, M. G., Hanaoka, S., Shimada, T., Saarinen, T., Salmela, T., & Vepsalainen, A. P. J. (1997). IS outsourcing practices in the USA, Japan & Finland: a comparative study. Journal of Information Technology, 12(4), 289–304.

Araz, C., Ozfirat, P. M., & Ozkarahan, I. (2007). An integrated multicriteria decision-making methodology for outsourcing management. Computers & Operations Research, 34(12), 3738-3756.

Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. International Journal of Social Research Methodology, 8(1), 19–32.

Arnold, U. (2000). New dimensions of outsourcing: a combination of transaction cost economics and the core competencies concept. European Journal of Purchasing & Supply Management, 6(1), 23–29.

Assaf, S., Hassanain, M. A., Al-Hammad, A.-M., & Al-Nehmi, A. (2011). Factors affecting outsourcing decisions of maintenance services in Saudi Arabian universities. Property Management, 29(2), 195–212.

Aydin, M. N., & Bakker, M. E. (2008). Analyzing IT maintenance outsourcing decision from a knowledge management perspective. Information Systems Frontiers, 10(3), 293–305.

Bacharach, S. B. (1989). Organizational Theories: Some Criteria for Evaluation. Academy of Management Review, 14(4), 496–151.

Bae, S. H., Yoo, C. S., & Sarkis, J. (2010). Outsourcing with quality competition: insights from a three-stage game-theoretic model. International Journal of Production Research, 48(2), 327–342.

Balakrishnan, S. (1994). The dynamics of make or buy decisions. European Journal of Operational Research, 74(3), 552–571.

Barney, J. B. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99-120.

Barthélemy, J. (2003). The seven deadly sins of outsourcing. Academy of Management Executive, 17(2), 87–100.

Beaumont, N., & Khan, Z. (2005). A Taxonomy of Refereed Outsourcing Literature (22/05). Victoria.

Behara, R. S., Gundersen, D. E., & Capozzoli, E. A. (1995). Trends in Information Systems Outsourcing. International Journal of Purchasing and Materials Management, 31(2), 45–51.

Benamati, J., & Rajkumar, T. M. (2008). An Outsourcing Acceptance Model: An Application of TAM to Application Development Outsourcing Decisions. Information Resources Management Journal, 21(2), 80–102.

Bhagat, P., Byramjee, F., & Taiani, V. (2010). A framework of total value orientation for strategic outsourcing decisions. Competitiveness Review: An International Business Journal incorporating Journal of Global Competitiveness, 20(4), 305–321.

Bidwell, M. (2010). Problems Deciding: How the Structure of Make-or-Buy Decisions Leads to Transaction Misalignment. Organization Science, 21(2), 362–379.

Bigelow, L. S., & Argyres, N. (2008). Transaction costs, industry experience and make-or-buy decisions in the population of early U.S. auto firms. Journal of Economic Behavior & Organization, 66(3–4), 791–807.

Bisman, J. E. (2008). Australian Public-Sector Outsourcing in the 'Golden Era': Cost Savings Evidence or Anecdote? Australian Accounting Review, 18(2), 108–122.

Bitran, G. R., Gurumurthi, S., & Sam, S. L. (2007). The Need for Third-Party Coordination in Supply Chain Governance. Sloan Management Review, 49(3), 30–37.

Bolumole, Y. A., Frankel, R., & Naslund, D. (2007). Developing a Theoretical Framework for Logistics Outsourcing. Transportation Journal, 46(2), 35–54.

Bonabeau, E., Bodick, N., & Armstrong, R. W. (2008). A More Rational Approach to New-Product Development. Harvard Business Review, 86(3), 96–102.

Boulaksil, Y., & Fransoo, J. C. (2010). Implications of outsourcing on operations planning: findings from the pharmaceutical industry. International Journal of Operations & Production Management, 30(10), 1059–1079.

Broedner, P., Kinkel, S., & Lay, G. (2009). Productivity effects of outsourcing: New evidence on the strategic importance of vertical integration decisions. International Journal of Operations & Production Management, 29(2), 127–150.

Broster, E. J. (1971). Planning Profit Strategies. Harlow: Longman.

Brown, P. (2010). The power of HR outsourcing. Strategic HR Review, 9(6), 27–32.

Bryce, D. J., & Useem, M. (1998). The Impact of Corporate Outsourcing on Company Value. European Management Journal, 16(6), 636–643.

Buffa, E. S. (1969). Modern Production Management. New York: John Wiley and Sons.

Bush, A. A., Tiwana, A., & Tsuji, H. (2008). An empirical investigation of the drivers of software outsourcing decisions in Japanese organizations. Information and Software Technology, 50(5), 499–510.

Busi, M., & McIvor, R. (2008). Setting the outsourcing research agenda: the top-10 most urgent outsourcing areas. Strategic Outsourcing: An International Journal, 1(3), 185–197.

Bustinza, O. F., Arias-Aranda, D., & Gutierrez-Gutierrez, L. (2010). Outsourcing, competitive capabilities and performance: an empirical study in service firms. International Journal of Production Economics, 126(2), 276–288.

Büyüközkan, G., Feyzioğlu, O., & Ersoy, M. Ş. (2009). Evaluation of 4PL operating models: A decision making approach based on 2-additive Choquet integral. International Journal of Production Economics, 121(1), 112–120.

Campbell, J. D. (1995). Outsourcing in maintenance management: A valid alternative to self-provision. Journal of Quality in Maintenance Engineering, 1(3), 18–24.

Cappelli, P. (2011). HR Sourcing Decisions and Risk Management. Organizational Dynamics, 40(4), 310–316.

Cariou, P., & Wolff, F.-C. (2011). Ship-Owners' Decisions to Outsource Vessel Management. Transport Reviews, 31(6), 709–724.

Carlsson, S., & Johansson, B. (2011). IS/ICT Outsourcing Decision Project in a Large Public Organization: A Case Study. Journal of Decision Systems, 20(2), 137–162.

Carter, J. R., & Yan, T. (2007). The procurement function's role in strategic outsourcing from a process perspective. International Journal of Procurement Management, 1(1–2), 210–226.

Chakrabarthy, S., & Whitten, D. (2011). The Sidelining of Top IT Executives in the Governance of Outsourcing: Antecedents, Power Struggles, and Consequences. IEEE Transactions on Engineering Management, 58(4), 799–814.

Chandraprakaikul, W., Baines, T. S., & Lim, R. Y. (2010). Strategic positioning of manufacturing operations within global supply chains. Journal of Engineering Manufacture, 224(5), 831–844.

Chang, D. S., Kuo, Y. C., & Chen, T. Y. (2008). Productivity measurement of the manufacturing process for outsourcing decisions: the case of a Taiwanese printed circuit board manufacturer. International Journal of Production Research, 46(24), 6981–6995.

Charles, K. A., & Cloete, C. E. (2009). Outsourcing United Nations peacekeeping roles and support functions. South African Journal of Industrial Engineering, 20(2), 1–13.

Chase, R. B., & Aquilano, N. J. (1973). Production & Operations Management: A Life Cycle Approach. Homewood, IL: Richard D. Irwin.

Chatha, K. A., & Butt, I. (2015). Themes of study in manufacturing strategy literature. International Journal of Operations & Production Management, 35(4), 604–698. doi: 10.1108/IJOPM-07-2013-0328

Chen, L. Y., & Wang, T.-C. (2009). Optimizing partners' choice in IS/IT outsourcing projects: The strategic decision of fuzzy VIKOR. International Journal of Production Economics, 120(1), 233–242.

Chen, Y. M., Goan, M.-J., & Huang, P.-N. (2011). Selection process in logistics outsourcing – a view from third party logistics provider. Production Planning & Control, 22(3), 308–324.

Cheng, Y.-H., & Lee, F. (2010). Outsourcing reverse logistics of high-tech manufacturing firms by using a systematic decision-making approach: TFT-LCD sector in Taiwan. Industrial Marketing Management, 39(7), 1111–1119.

Chesbrough, H. W., & Teece, D. J. (1996). When Is Virtual Virtuous? Harvard Business Review, 74(1), 65–73.

Chiang, F. T., Chow, I. H.-S., & Birtch, T. A. (2010). Examining human resource management outsourcing in Hong Kong. The International Journal of Human Resource Management, 21(15), 2762–2777.

Chien, C.-F., Wu, J.-Z., & Weng, Y.-D. (2010). Modeling order assignment for semiconductor assembly hierarchical outsourcing and developing the decision support system. Flexible Services and Manufacturing Journal, 22(1–2), 109–139.

Choi, M., Brand, M., & Kim, J. (2009). A feasibility evaluation on the outsourcing of quality testing and inspection. International Journal of Project Management, 27(1), 89–95.

Chou, D. C., & Chou, A. Y. (2009). Information systems outsourcing life cycle and risks analysis. Computer Standards & Interfaces, 31(5), 1036–1043.

Clark Jr., T. D., Zmud, R. W., & McCray, G. E. (1995). The outsourcing of information services; transforming the nature of business in the information industry. Journal of Information Technology, 10(4), 221–237.

Coase, R. H. (1937). The Nature of the Firm. Economica, 4(16), 386-405.

Coggburn, J. D. (2007). Outsourcing Human Resources: The Case of the Texas Health and Human Services Commission. Review of Public Personnel Administration, 27(4), 315–335.

Collins, J. S., & Millen, R. A. (1995). Information Systems Outsourcing by Large American Industrial Firms: Choices and Impacts. Information Resources Management Journal, 8(1), 5–14.

Cong, G., Zhang, J., Huazhong, T. C., & Lia, K.-K. (2008). A Variable Precision Fuzzy Rough Group Decision-Making Model for IT Offshore Outsourcing Risk Evaluation. Journal of Global Information Management, 16(2), 18–34.

Constable, C. J., & New, C. (1976). Operations Management: A Systems Approach Through Text and Cases. London: John Wiley & Sons.

Cooke, F. L., Shen, J., & McBride, A. (2005). Outsourcing HR as a competitive strategy? A literature review and an assessment of implications. Human Resource Management, 44(4), 413–432.

Creon, M. J., Grover, V., & Teng, J. T. C. (2017). Theoretical Perspectives on the Outsourcing of Information Systems. In L. P. Willcocks, M. C. Lacity, & C. Sauer (Eds.), Outsourcing and Offshoring Business Services (pp. 25-52). Cham: Springer International Publishing.

Cronin, P., Ryan, F., & Coughlan, M. (2008). Undertaking a literature review: a step-by-step approach. British Journal of Nursing, 17(1), 38–43.

Cronk, J., & Sharp, J. (1995). A framework for deciding what to outsource in information technology. Journal of Information Technology, 10(4), 259–267.

Cropanzano, R., & Mitchell, M. S. (2005). Social Exchange Theory: An Interdisciplinary Review. Journal of Management, 31(6), 874–900.

Cross, J. (1995). IT Outsourcing: British Petroleum's Competitive Approach. Harvard Business Review, 73(3), 94–102.

Cui, Z., Loch, C. H., Grossmann, B., & He, R. (2009). Outsourcing Innovation. Research-Technology Management, 52(6), 54–63.

Culliton, J. W. (1942). Make or buy : a consideration of the problems fundamental to a decision whether to manufacture or buy materials, accessory equipment, fabricating parts, and supplies (G. S. o. B. A. H. University Ed.). Boston, MA: Graduate School of Business Administration/ Harvard University.

Dabhilkar, M., & Bengtsson, L. (2008). Invest or divest? On the relative improvement potential in outsourcing manufacturing. Production Planning & Control, 19(3), 212–228.

Dale, B. G., & Cunningham, M. T. (1983). The Purchasing Manufacturing Interface in the Make-or-Buy Decision. Journal of Purchasing and Materials Management, 19(1), 11–18.

de Almeida, A. T. (2007). Multicriteria decision model for outsourcing contracts selection based on utility function and ELECTRE method. Computers & Operations Research, 34(12), 3569–3574.

de Geus, A. (1999). The Living Company. London: Nicolas Brealy.

de Looff, L. A. (1995). Information systems outsourcing decision making: a framework, organizational theories and case studies. Journal of Information Technology, 10(4), 281–297.

Deavers, K. L. (1997). Outsourcing: A corporate competitiveness strategy, not a search for low wages. Journal of Labor Research, 18(4), 503–519.

Dekkers, R. (2008). Adapting Organizations: The Instance of Business Process Re-Engineering. Systems Research and Behavioral Science, 25(1), 45–66.

Dekkers, R. (2011). Impact of strategic decision making for outsourcing on managing manufacturing. International Journal of Operations & Production Management, 31(9), 935–965.

Dekkers, R., & Bennett, D. (2010). A Review of Research and Practice for Industrial Networks of the Future. In L. Wang & S. C. L. Koh (Eds.), Enterprise Networks and Logistics for Agile Manufacturing (pp. 11–38). Heidelberg: Springer.

den Butter, F. A. G., & Linse, K. A. (2008). Rethinking Procurement in the Era of Globalization. Sloan Management Review, 50(1), 76–80.

Dev, N. K., Caprihan, R., & Swami, S. (2011). A case study on redesign of supply chain network of a manufacturing organization. Journal of Advances in Management Research, 8(2), 195–212.

Dias Ferreira, A. M., & Barbin Laurindo, F. J. (2009). Outsourcing decision-making aspects considered by IT departments in Brazilian companies. International Journal of Production Economics, 122(1), 305–311.

Dibbern, J., Goles, T., Hirschheim, R., & Jayatilaka, B. (2004). Information systems outsourcing: a survey and analysis of the literature. The DATA BASE for Advances in Information Systems, 35(4), 6–102.

Dobrzykowski, D. D., Tran, O., & Tarafdar, M. (2010). Value co-creation and resource based perspectives for strategic sourcing. Strategic Outsourcing: An International Journal, 3(2), 106–127.

Dolgui, A., & Proth, J.-M. (2013). Outsourcing: definitions and analysis. International Journal of Production Research, 51(23-24), 6769–6777. doi: 10.1080/00207543.2013.855338

Doney, L. D. (1968). Coping with Uncertainty in the Make or Buy Decision. Management Accounting, 50(2), 31–34.
Druckman, D. (1998). Social Exchange Theory: Premises and Prospects. International Negotiation, 3(2), 253–266.
Dubin, R. (1976). Theory Building in Applied Areas. In M. D. Dunnette (Ed.), Handbook of Industrial and Organizational Psychology (pp. 17–39). Chicago: Rand McNally College Publishing.
Earl, M. J. (1996). The Risks of Outsourcing IT. Sloan Management Review, 37(3), 26–32.
Eisenhardt, K. M. (1989). Agency Theory: An Assessment and Review. Academy of Management Review, 14(1), 57–74.
Elfring, T., & Baven, G. (1994). Outsourcing technical services: Stages of development. Long Range Planning, 27(5), 42–51.
Ellram, L. M., Tate, W. L., & Billington, C. (2008). Offshore outsourcing of professional services: A transaction cost economics perspective. Journal of Operations Management, 26(2), 148–163.
Eppinger, S. D., & Chitkara, A. R. (2009). The Practice of Global Product Development. Sloan Management Review, 47(4), 22–30.
Espino-Rodríguez, T. F., Lai, P.-C., & Baum, T. (2008). Asset specificity in make or buy decisions for service operations: An empirical application in the Scottish hotel sector. International Journal of Service Industry Management, 19(1), 111–133.
Espino-Rodríguez, T. F., & Padrón-Robaina, V. (2006). A review of outsourcing from the resource-based view of the firm. International Journal of Management Reviews, 8(1), 49–70.
Everaert, P., Sarens, G., & Rommel, J. (2007). Sourcing strategy of Belgian SMEs: empirical evidence for the accounting services. Production Planning & Control, 18(8), 716–725.
Faisal, M. N., & Banwet, D. K. (2009). Analysing alternatives for information technology outsourcing decision: an analytic network process approach. International Journal of Business Information Systems, 4(1), 47–62.
Fan, Y. (2000). Strategic outsourcing: evidence from British companies. Marketing Intelligence & Planning, 18(4), 213–219.
Feldman, M. S., & Orlikowski, W. J. (2011). Theorizing Practice and Practicing Theory. Organization Science, 22(5), 1240–1253.
Feldmann, A., Olhager, J., & Persson, F. (2009). Designing and managing manufacturing networks – a survey of Swedish plants. Production Planning & Control, 20(2), 101–112.
Fisher, J., Hirschheim, R., & Jacobs, R. (2008). Understanding the outsourcing learning curve: A longitudinal analysis of a large Australian company. Information Systems Frontiers, 10(2), 165–178.
Flyvbjerg, B. (2006). Five Misunderstandings About Case-Study Research. Qualitative Inquiry, 12(2), 219–245.
Foxx, W. K., Bunn, M. D., & McCay, V. (2009). Outsourcing Services in the Healthcare Sector. Journal of Medical Marketing, 9(1), 41–55.
Friedrich, S. A. (2000). Was ist "Core" und was ist "Non-Core"? io Management, 69(4), 18–23.
Fry, L. W., & Smith, D. A. (1987). Congruence, Contingency, and Theory Building. Academy of Management Review, 12(1), 117–132.
Galanaki, E., Bourantas, D., & Papalexandris, N. (2008). A decision model for outsourcing training functions: distinguishing between generic and firm-job-specific training content. The International Journal of Human Resource Management, 19(12), 2332–2351.
Galbraith, J. K. (1991). A History of Economics: The Past as the Present. London: Penguin.
Geary, J., Marriott, L., & Rowlinson, M. (2001). Journal Rankings in Business and Management and the 2001 Research Assessment Exercise in the UK. British Journal of Management, 15(95–141).
Gewald, H., & Dibbern, J. (2009). Risks and benefits of business process outsourcing: A study of transaction services in the German banking industry. Information & Management, 46(4), 249–257.
Gietzmann, M. B. (1996). Incomplete contracts and the make or buy decision: Governance design and attainable flexibility. Accounting, Organizations and Society, 21(6), 611–626.

Gilley, K. M., & Rasheed, A. (2000). Making More by Doing Less: An Analysis of Outsourcing and its Effects on Firm Performance. Journal of Management, 26(4), 763–790.
Goldsmith, R. F. (1994). Confidently Outsourcing Software Development. Journal of Systems Management, 45(4), 12–17.
Gorla, N., & Lau, M. B. (2010). Will Negative Experiences Impact Future IT Outsourcing? Journal of Computer Information Systems, 50(3), 91–101.
Görzig, B., & Stephan, A. (2002). Outsourcing and Firm-level Performance (309). Berlin.
Gotzamani, K., Longinidis, P., & Vouzas, F. (2010). The logistics services outsourcing dilemma: quality management and financial performance perspectives. Supply Chain Management: An International Journal, 15(6), 438–453.
Grant, R. M. (1996). Toward A Knowledge-Based Theory Of The Firm. Strategic Management Journal, 17(winter special issue), 109–122.
Gray, J. V., Roth, A. V., & Tomlin, B. (2009). The Influence of Cost and Quality Priorities on the Propensity to Outsource Production. Decision Sciences, 40(4), 697–726.
Gray, J. V., Tomlin, B., & Roth, A. V. (2009). Outsourcing to a Powerful Contract Manufacturer: The Effect of Learning-by-Doing. Production and Operations Management, 17(5), 487–505.
Green, B. N., Johnson, C. D., & Adams, A. (2006). Writing narrative literature reviews for peer-reviewed journals: secrets of the trade. Journal of Chiropractic Medicine, 5(3), 101–117.
Greiner, L. E. (1998). Revolutions as Organizations Grow. Harvard Business Review, 76(3), 55–67.
Grewal, C. S., Sareen, K. K., & Gill, S. (2008). A multicriteria logistics-outsourcing decision making using the analytic hierarchy process. International Journal of Services Technology and Management, 9(1), 1–13.
Gross, H. (1966). Make or Buy Decisions in Growing Firms. The Accounting Review, 41(4), 745–753.
Grover, L. V., & Teng, J. T. C. (1993). The Decision to Outsource Information Systems Functions. Journal of Systems Management, 44(11), 34–?
Grover, V., Cheon, M. J., & Teng, J. T. C. (1996). The Effect of Service Quality and Partnership on the Outsourcing of Information Systems Functions. Journal of Management Information Systems, 12(4), 89–116.
Gulati, R. (2007). Silo Busting: How to Execute on the Promise of Customer Focus. Harvard Business Review, 85(5), 98–109.
Gupta, M., & Zhender, D. (1994). Outsourcing and its Impact on Operations Strategy. Production and Inventory Management Journal, 34(3), 70–76.
Hafeez, K., Malak, N., & Zhang, Y. B. (2007). Outsourcing non-core assets and competences of a firm using analytic hierarchy process. Computers & Operations Research, 34(12), 3592–3608.
Hambrick, D. C. (2007). The Field of Management's Devotion to Theory: Too Much of a Good Thing? Academy of Management Journal, 50(6), 1346–1352.
Hamel, G., & Prahalad, C. K. (1994). Competing for the Future. Boston, MA: Harvard Business School Press.
Handley, S. M., & Benton Jr., W. C. (2009). Unlocking the business outsourcing process model. Journal of Operations Management, 27(5), 344–361.
Harrison, B., & Kelley, M. R. (1993). Outsourcing and the Search for `Flexibility'. Work, Employment & Society, 7(2), 213–235.
Hätönen, J. (2009). Making the locational choice: A case approach to the development of a theory of offshore outsourcing and internationalization. Journal of International Management, 15(1), 61–76.
Hätönen, J., & Eriksson, T. (2009). 30+ years of research and practice of outsourcing – Exploring the past and anticipating the future. Journal of International Management, 15(2), 142–155.
Hayes, D. C., Hunton, J. E., & Reck, J. L. (2000). Information Systems Outsourcing Announcements: Investigating the Impact on the Market Value of Contract-Granting Firms. Journal of Information Systems, 14(2), 109–125. doi: 10.2308/jis.2000.14.2.109
Hendry, J. (1995). Culture, Community and Networks: The Hidden Cost of Outsourcing. European Management Journal, 13(2), 193–200.

Hesketh, A. (2008). Should it stay or should it go? Examining the shared services or outsourcing decision. Strategic Outsourcing: An International Journal, 1(2), 154–172.
Higgins, C. C. (1955). Make-or-buy re-examined. Harvard Business Review, 33(2), 109–199.
Holcomb, T. R., & Hitt, M. A. (2007). Towards a model of strategic outsourcing. Journal of Operations Management, 25(2), 464–481.
Holton III, E. F., & Lowe, J. S. (2007). Toward a General Research Process for Using Dubin's Theory Building Model. Human Resource Development International, 6(3), 297–320.
Howells, J., Gagliardi, D., & Malik, K. (2008). The growth and management of R&D outsourcing: evidence from UK pharmaceuticals. R&D Management, 38(2), 205–219.
Hsiao, H. I., van der Vorst, J. G. A. J., Kemp, R. G. M., & Omta, S. W. F. O. (2010). Developing a decision-making framework for levels of logistics outsourcing in food supply chain networks. International Journal of Physical Distribution & Logistics Management, 40(5), 395–414.
Hsieh, T. (2010). Zappos's CEO on Going to Extremes for Customers. Harvard Business Review, 88(7/8), 41–45.
Hsu, P.-F., & Hsu, M.-G. (2008). Optimizing the Information Outsourcing Practices of Primary Care Medical Organizations Using Entropy and TOPSIS. Quality & Quantity, 42(2), 181–201.
Huber, R. L. (1993). How Continental Bank outsourced its "Crown Jewels". Harvard Business Review, 71(1), 121–129.
Hunter, J. D., & Hall, A. N. (2011). From the shadows into the light: Let's get real about outsourcing. Journal of Management & Organization, 17(1), 77–94.
Hwang, H. S., Ko, W.-H., & Goan, M.-J. (2007). Web-based multi-attribute analysis model for make-or-buy decisions. Mathematical and Computer Modelling, 46(7–8), 1081–1090.
Işıklar, G., Alptekin, E., & Büyüközkan, G. (2007). Application of a hybrid intelligent decision support model in logistics outsourcing. Computers & Operations Research, 34(12), 3701–3714.
Jackson, M. C. (1999). Towards coherent pluralism in management science. Journal of the Operational Research Society, 50(1), 12–22.
Jantunen, A., Sandström, J., & Kuittinen, H. (2009). Boundary choices in the pulp and paper industry. Journal of Manufacturing Technology Management, 20(3), 314–329.
Jauch, L. R., & Wilson, H. K. (1979). A strategic perspective for make or buy decisions. Long Range Planning, 12(6), 56–61.
Jennings, D. (1996). Outsourcing opportunities for financial services. Long Range Planning, 29(3), 393–404.
Jiang, B., Belohlav, J. A., & Young, S. T. (2007). Outsourcing impact on manufacturing firms' value: Evidence from Japan. Journal of Operations Management, 25(4), 885–900.
Jiang, B., Yao, T., & Feng, B. (2008). Valuate Outsourcing Contracts from Vendors' Perspective: A Real Options Approach. Decision Sciences, 39(3), 383–405.
Johnston, R. (2005). On preparing for more subjective judgements: RAE2008. Perspectives: Policy and Practice in Higher Education, 9(4), 115–120.
Jonash, R. S. (1996). Strategic Technology Leveraging: Making Outsourcing Work for You. Research-Technology Management, 39(2), 19–25.
Jurison, J. (1995). The role of risk and return in information technology outsourcing decisions. Journal of Information Technology, 10(4), 239–247.
Kakabadse, N., & Kakabadse, A. (2000). Critical review – Outsourcing: a paradigm shift. Journal of Management Development, 19(8), 670–728.
Kaplan, R. S., Norton, D. P., & Rugelsjoen, B. (2010). Managing Alliances with the Balanced Scorecard. Harvard Business Review, 88(1/2), 114–120.
Kara, S. S. (2011). Evaluation of outsourcing companies of waste electrical and electronic equipment recycling. International Journal of Environment Science and Technology, 8(2), 291–304.
Kedia, B. L., & Lahiri, S. (2007). International outsourcing of services: A partnership model. Journal of International Management, 13(1), 22–37.
Kelly, A., Morris, H., & Harvey, C. (2009). Modelling the Outcome of the UK Business and Management Studies RAE 2008 with reference to the ABS Journal Quality Guide. Manchester.

Khan, S., & Schroder, B. (2009). Use of rules in decision-making in government outsourcing. Industrial Marketing Management, 38(4), 379–386.

King, W. R. (1994). Strategic outsourcing decisions. Information Systems Management, 11(4), 58–61.

Kinkel, S., Lay, G., & Maloca, S. (2008). Patterns of internationalization of German SMEs: surveying manufacturing offshoring. In L. P. Dana, I. M. Welpe, M. Han, & V. Ratten (Eds.), Handbook of Research on European Business and Entrepreneurship (pp. 246-262). Cheltenham: Edward Elgar.

Kirby, J. (2007). Mad About Plaid. Harvard Business Review, 85(11), 39–49.

Klingenberg, W., & Boskma, J.-D. (2010). A conceptual framework for outsourcing materials handling activities in automotive: differentiation and implementation. International Journal of Production Research, 48(16), 4877–4899.

Koli, L. N. (2010). Management Accounting in Pharmaceutical Sector—A Vital Role in the Decision-making Process. The Management Accountant, 45(11), 876–879.

Koong, K. S., Liu, L. C., & Wang, Y. J. (2007). Taxonomy development and assessment of global information technology outsourcing decisions. Industrial Management & Data Systems, 107(3), 397–414.

Kotabe, M., Mol, M. J., & Murray, J. Y. (2008). Outsourcing, performance, and the role of e-commerce: A dynamic perspective. Industrial Marketing Management, 37(1), 37–45.

Kraljic, P. (1983). Purchasing Must Become Supply Management. Harvard Business Review, 61(5), 109–117.

Kroes, J. R., & Ghosh, S. (2010). Outsourcing congruence with competitive priorities: Impact on supply chain and firm performance. Journal of Operations Management, 28(2), 124–143.

Kulkarni, S. V., & Jenamani, M. (2008). Make-or-buy: a case study at an Indian automobile company. Strategic Outsourcing: An International Journal, 1(3), 268–287.

Kumar, S., & Bisson, J. (2008). Utilizing analytic hierarchy process for improved decision making within supply chains. Human Systems Management, 27(1), 49–62.

Kumar, S., & Kopitzke, K. K. (2008). A practitioner's decision model for the total cost of outsourcing and application to China, Mexico, and the United States. Journal of Business Logistics, 29(2), 107–139.

Kumar, S., Medina, J., & Nelson, M. T. (2009). Is the offshore outsourcing landscape for US manufacturers migrating away from China? Supply Chain Management: An International Journal, 14(5), 342–348.

Kumar, S., Zampogna, P., & Nansen, J. (2010). A closed loop outsourcing decision model for developing effective manufacturing strategy. International Journal of Production Research, 48(7), 1873–1900.

Kurokawa, S. (1997). Make-or-buy decisions in R&D: small technology based firms in the United States and Japan. IEEE Transactions on Engineering Management, 44(2), 124–134.

Kwak, S. H., & Whang, K.-S. (2008). A framework of make-or-buy planning for an assembler. International Journal of Entrepreneurship and Innovation Management, 8(4), 488–500.

Lacity, M., Hirschheim, R., & Willcocks, L. (1994). Realizing Outsourcing Expectations - Incredible Expectations, Credible Outcomes. Information Systems Management, 11(4), 7–18.

Lacity, M. C., & Hirschheim, R. (1993). The Information Systems Outsourcing Bandwagon. Sloan Management Review, 35(1), 73–86.

Lacity, M. C., Khan, S., Yan, A., & Willcocks, L. P. (2010). A review of the IT outsourcing empirical literature and furture research directions. Journal of Information Technology, 25(4), 395–433.

Lacity, M. C., Solomon, S., Yan, A., & Willcocks, L. P. (2011). Business process outsourcing studies: a critical review and research directions. Journal of Information Technology, 26(4), 221–258.

Lacity, M. C., Willcocks, L. P., & Feeny, D. F. (1995). IT Outsourcing: Maximize Flexibility and Control. Harvard Business Review, 73(3), 84–93.

Lacity, M. C., Willcocks, L. P., & Feeny, D. F. (1996). The value of selective IT sourcing. Sloan Management Review, 37(3), 13–25.

Lado, A. A., Boyd, N. G., Wright, P., & Kroll, M. (2006). Paradox and Theorizing within the Resource-Based View. Academy of Management Review, 31(1), 115–131.

Lambe, C. J., Wittmann, C. M., & Spekman, R. E. (2001). Social Exchange Theory and Research on Business-to-Business Relational Exchange. Journal of Business-to-Business Marketing, 8(3), 1–36.
Lamminmaki, D. (2008). Accounting and the management of outsourcing: An empirical study in the hotel industry. Management Accounting Research, 19(2), 163–181.
Laois, L. G., & Moschuris, S. J. (1997). A decision support system for make or buy in an aircraft maintenance facility. Production and Inventory Management Journal, 38(4), 22–27.
Lazonick, W., & O'Sullivan, M. (2000). Maximizing shareholder value: a new ideology for corporate governance. Economy and Society, 29(1), 13–35.
Lee, S., & Walsh, P. (2011). SWOT and AHP hybrid model for sport marketing outsourcing using a case of intercollegiate sport. Sport Management Review, 14(4), 361–369.
Lei, D., & Hitt, M. A. (1995). Strategic Restructuring and Outsourcing: The Effect of Mergers and Acquisitions and LBOs on Building Firm Skills and Capabilities. Journal of Management, 21(5), 835–859.
Li, X. (2011). Study on Technological Innovation Outsourcing in Scientific and Technological Small and Medium-sized Enterprises Based on Motives. Asian Social Science, 7(8), 233–236.
Li, Y., Wang, X., & Adams, T. M. (2009). Ride service outsourcing for profit maximization. Transportation Research Part E: Logistics and Transportation Review, 45(1), 138–148.
Liao, Y., Liao, K., & Hutchinson, R. (2010). A conceptual framework for prototyping outsourcing in new product development: A knowledge-based view. Journal of Manufacturing Technology Management, 21(1), 122–138.
Lin, Y.-T., Lin, C.-L., Yu, H.-C., & Tzeng, G.-H. (2010). A novel hybrid MCDM approach for outsourcing vendor selection: A case study for a semiconductor company in Taiwan. Expert Systems with Applications, 37(7), 4796–4804.
Linder, J. C., Cole, M. I., & Jacobson, A. L. (2002). Business transformation through outsourcing. Strategy & Leadership, 30(4), 23–28.
Liou, J. J. H., & Chuang, Y.-T. (2010). Developing a hybrid multi-criteria model for selection of outsourcing providers. Expert Systems with Applications, 37(5), 3755–3761.
Liu, Z., & Nagurney, A. (2011). Supply chain outsourcing under exchange rate risk and competition. Omega, 39(5), 539–549.
Lockamy III, A., & McCormack, K. (2010). Analyzing risks in supply networks to facilitate outsourcing decisions. International Journal of Production Research, 48(2), 593–611.
Logan, M. S. (2000). Using Agency Theory to Design Successful Outsourcing Relationships. The International Journal of Logistics Management, 11(2), 21-32.
Lowry, W. M. (1967). Two-Way Contracting. Harvard Business Review, 45(3), 131–137.
MacCormack, A., & Forbath, T. (2008). Learning the Fine Art of Global Collaboration. Harvard Business Review, 86(1), 24–26.
MacDonald, S., & Kam, J. (2007). Ring a Ring o' Roses: Quality Journals and Gamesmanship in Management Studies. Journal of Management Studies, 44(4), 640–655.
Mahalik, D. K. (2010). Outsourcing in e-Governance: A Multi Criteria Decision Making Approach. Journal of Administration & Governance, 5(1), 24–35.
Mahnke, V. (2001). The Process of Vertical Dis-Integration: An Evolutionary Perspective on Outsourcing. Journal of Management and Governance, 5(3–4), 353–379.
Maltz, A., Riley, L., & Boberg, K. (1993). Purchasing Logistics Services in a Transborder Situation: Logistics Outsourcing in US-Mexico Coproduction. International Journal of Physical Distribution & Logistics Management, 23(8), 46–54.
Maltz, A. B. (1994a). Outsourcing the Warehousing Function: Economic and Strategic Considerations. Logistics and Transportation Review, 30(3), 245–265.
Maltz, A. B. (1994b). The Relative Importance of Cost and Quality in the Outsourcing of Warehousing. Journal of Business Logistics, 15(2), 45–62.
Maltz, A. B., & Ellram, L. M. (1997). Total Cost of Relationship: An Analytical Framework for the Logistics Outsourcing Decision. Journal of Business Logistics, 18(1), 45–66.
Manes, R. P., Park, S. H., & Jensen, R. (1982). Relevant Costs of Intermediate Goods and Services. The Accounting Review, 57(3), 594–606.

Marasco, A. (2008). Third-party logistics: A literature review. International Journal of Production Economics, 113(1), 127–147. doi: 10.1016/j.ijpe.2007.05.017

Marsh, C. (2009). Outsourcing in reverse: A case study from the public sector. Performance Improvement, 48(8), 19–25.

Marshall, D., McIvor, R., & Lamming, R. (2007). Influences and outcomes of outsourcing: Insights from the telecommunications industry. Journal of Purchasing and Supply Management, 13(4), 245–260.

Maskell, P., Pedersen, T., Petersen, B., & Dick-Nielsen, J. (2007). Learning Paths to Offshore Outsourcing: From Cost Reduction to Knowledge Seeking. Industry and Innovation, 14(3), 239–257.

Mazzawi, E. (2002). Transformational outsourcing. Business Strategy Review, 13(3), 39–43.

McFarlan, F. W., & Nolan, R. L. (1995). How to manage an IT outsourcing Alliance. Sloan Management Review, 36(2), 9–23.

McGinnis, M. A., Kochunny, C. M., & Ackerman, K. B. (1995). Third Party Logistics Choice. International Journal of Logistics Management, 6(2), 93–102.

McIvor, R. (2008). What is the right outsourcing strategy for your process ? European Management Journal, 26(1), 24-34.

McIvor, R. (2009). How the transaction cost and resource-based theories of the firm inform outsourcing evaluation. Journal of Operations Management, 27(1), 45–63.

McIvor, R. (2010). The influence of capability considerations on the outsourcing decision: the case of a manufacturing company. International Journal of Production Research, 48(17), 5031–5052.

McIvor, R., Humphreys, P., & McKittrick, A. (2010). Integrating the critical success factor method into the business process outsourcing decision. Technology Analysis & Strategic Management, 22(3), 339–360.

McIvor, R., Humphreys, P., McKittrick, A., & Wall, T. (2009). Performance management and the outsourcing process: Lessons from a financial services organisation. International Journal of Operations & Production Management, 29(10), 1025–1048.

McIvor, R. T., Humphreys, P. K., & McAleer, W. E. (1997). A strategic model for the formulation of an effective make or buy decision. Management Decision, 35(2), 169–178.

McKenna, D., & Walker, D. H. T. (2008). A study of out-sourcing versus in-sourcing tasks within a project value chain. International Journal of Managing Projects in Business, 1(2), 216–232.

McLellan, K., Marcolin, B. L., & Beamish, P. W. (1995). Financial and strategic motivations behind IS. Journal of Information Technology, 10(4), 299–321.

Mello, J. E., Stank, T. P., & Esper, T. L. (2008). A Model of Logistics Outsourcing Strategy. Transportation Journal, 47(4), 5–25.

Mercer. (1983). Growing opportunities in public service contracting. Harvard Business Review, 61(2), 178, 186–187.

Merino, F., & Rodriguez, D. R. (2010). Relatedness of decisions in business services outsourcing. The Service Industries Journal, 30(13), 2225–2237.

Michell, V., & Fitzgerald, G. (1997). The IT outsourcing market-place: vendors and their selection. Journal of Information Technology, 12(3), 223–237.

Moon, Y., Yao, T., & Jiang, B. (2011). Outsourcing versus joint venture from vendor's perspective. International Journal of Production Economics, 129(1), 23–31.

Moschuris, S. J. (2007). Triggering Mechanisms in Make-or-Buy Decisions: An Empirical Analysis. Journal of Supply Chain Management, 43(1), 40–49.

Moschuris, S. J. (2008). Organizational participants in the make-or-buy process. Industrial Marketing Management, 37(2), 143–153.

Moschuris, S. J., & Kondylis, M. N. (2007). Outsourcing in private healthcare organisations: a Greek perspective. Journal of Health Organization and Management, 21(2), 220–223.

Moses, A., & Åhlström, P. (2008a). Nature of functional involvement in make or buy decision processes. International Journal of Operations & Production Management, 29(9), 894–920.

Moses, A., & Åhlström, P. (2008b). Dimensions of change in make or buy decision processes. Strategic Outsourcing: An International Journal, 1(3), 230–251.

Mudambi, R., & Venzin, M. (2010). The Strategic Nexus of Offshoring and Outsourcing Decisions. Journal of Management Studies, 47(10), 1510–1533.
Nam, K., Rajagopalan, S., Raghav Rao, H., & Chaudhury, A. (1996). A Two-Level Investigation of Information Systems Outsourcing. Communications of the ACM, 39(7), 36–44.
Nambisan, S., & Sawhney, M. (2007). A Buyer's Guide to the Innovation Bazaar. Harvard Business Review, 85(6), 109–118.
Narasimhan, R., Narayanan, S., & Srinivasan, R. (2010). Explicating the mediating role of integrative supply management practices in strategic outsourcing: a case study analysis. International Journal of Production Research, 48(2), 379–404.
Nassimbeni, G. (1998). Network structures and co-ordination mechanisms: A taxonomy. International Journal of Operations & Production Management, 18(6), 538–554.
Nelson, R. R., & Winter, S. G. (1982). An Evolutionary Theory of Change. Cambridge, MA: Belknap Press.
Nelson, R. R., & Winter, S. G. (2002). Evolutionary Theorizing in Economics. Journal of Economic Perspectives, 16(2), 23–46.
Noke, H., & Hughes, M. (2010). Climbing the value chain: Strategies to create a new product development capability in mature SMEs. International Journal of Operations & Production Management, 30(2), 132–154.
Nuñez, I. (2009). Outsourcing occupational safety and health: An analysis of the make or buy decision. Human Resource Management, 48(6), 941–958.
Oliver, C. (1990). Determinants of Interorganizational Relationships: Integration and Future Directions. Academy of Management Review, 15(2), 241–265.
Olson, D. L., & Wu, D. D. (2011). Multiple Criteria Analysis For Evaluation Of Information System Risk. Asia-Pacific Journal of Operational Research, 28(1), 25–39.
Olson, J. E. (2005). Top-25-Business-School Professors Rate Journals in Operations Management and Related Fields. Interfaces, 35(4), 323–338.
Olson, R. A. (1968). Manufacturing Management: A Quantitative Approach. Scranton, PA: International Textbook Company.
Ordanini, A., & Silvestri, G. (2008). Recruitment and selection services: Efficiency and competitive reasons in the outsourcing of HR practices. The International Journal of Human Resource Management, 19(2), 372–391.
Ordoobadi, S. (2009a). Application of Taguchi loss functions for supplier selection. Supply Chain Management: An International Journal, 14(1), 22–30.
Ordoobadi, S. (2009b). Outsourcing reverse logistics and remanufacturing functions: a conceptual strategic model. Management Research News, 32(9), 831–845.
Padmanabhan, P. (2007). Technical Communication Outsourcing: The Twelve Driver Framework Tutorial. IEEE Transactions on Professional Communication, 50(2), 109–120.
Pai, A. K., & Basu, S. (2007). Offshore technology outsourcing: overview of management and legal issues. Business Process Management Journal, 13(1), 21–46.
Parmigiani, A. (2007). Why do firms both make and buy? An investigation of concurrent sourcing. Strategic Management Journal, 28(3), 285–311.
Peisch, R. (1995). When outsourcing goes awry ... seven experts discuss how the outsourcing crisis could have been avoided. Harvard Business Review, 73(3), 24–37.
Penrose, E. T. (1959). The Theory of the Growth of the Firm. Oxford: Basil Blackwell.
Penrose, E. T. (1963). The Theory of the Growth of the Firm. Oxford: Basil Blackwell.
Perçin, S. (2008). Fuzzy multi-criteria risk-benefit analysis of business process outsourcing (BPO). Information Management & Computer Security, 16(3), 213–234.
Pisano, G. P., & Shih, W. C. (2009). Restoring American Competitiveness. Harvard Business Review, 87(7/8), 114–125.
Platts, K. W., & Song, N. (2010). Overseas sourcing decisions – the total cost of sourcing from China. Supply Chain Management: An International Journal, 14(4), 320–331.

Poppo, L., & Zenger, T. (1995). Opportunism, routines, and boundary choices: A comparative test of transaction cost and resource-based explanations for make-or-buy decisions. Academy of Management Journal, 38(1), 42–46.

Powell, T. C. (1995). Total quality management as competitive advantage: A review and empirical study. Strategic Management Journal, 16(1), 15–37.

Prahalad, C. K., & Hamel, G. (1990). The Core Competence of the Corporation. Harvard Business Review, 168(3), 79–91.

Priem, R. L., & Butler, J. E. (2001). Is the Resource-Based "View" a Useful Perspective for Strategic Management Research? Academy of Management Review, 26(1), 22–40.

Probert, D. R., Jones, S. W., & Gregory, M. J. (1993). The Make or Buy Decision in the Context of Manufacturing Strategy Development. Journal of Engineering Manufacture, 207(4), 241–250.

Quinn, J. B., & Hilmer, F. G. (1994). Strategic Outsourcing. Sloan Management Review, 35(4), 43–55.

Quraeshi, Z. A., & Luqmani, M. (2007). Towards a Framework for Effective Offshore Outsourcing Decision-Making. Journal of Global Business, 36, 59–72.

Rao, K., & Young, R. R. (1994). Global Supply Chains: Factors Influencing Outsourcing of Logistics Functions. International Journal of Physical Distribution & Logistics Management, 24(6), 11–19.

Rappaport, A. (2006). Ten Ways to Create Shareholder Value. Harvard Business Review, 84(9), 66–77.

Ray, A., Sarkar, B., & Sanyal, S. (2008). Outsourcing decision under Utopian environment. Journal of Applied Accounting Research, 9(3), 181–191.

Razzaque, M. A., & Sheng, C. C. (1998). Outsourcing of logistics functions: a literature survey. International Journal of Physical Distribution & Logistics Management, 28(2), 89–107.

Richmond, W. B., & Seidmann, A. (1993). Software Development Outsourcing Contract: Structure and Business Value. Journal of Management Information Systems, 10(1), 57–72.

Rockart, J. F., Earl, M. J., & Ross, J. W. (1996). Eight Imperatives for the New IT Organization. Sloan Management Review, 38(1), 43–55.

Roussel, P. A., Saad, K. A., & Erickson, T. J. (1991). Third generation R&D: managing the link to corporate strategy. Boston: Harvard Business School Press.

Rubin, P. H. (1973). The Expansion of Firms. Journal of Political Economy, 81(4), 936–949.

Ruffo, M., Tuck, C., & Hague, R. (2007). Make or buy analysis for rapid manufacturing. Rapid Prototyping Journal, 13(1), 23–29.

Saaty, T. L. (1986). Axiomatic Foundation of the Analytic Hierarchy Process. Management Science, 32(7), 841–855.

Sanayei, A., Mousavi, S. F., Abdi, M. R., & Mohaghar, A. (2008). An integrated group decision-making process for supplier selection and order allocation using multi-attribute utility theory and linear programming. Journal of the Franklin Institute, 345(7), 713–745.

Sanayei, A., Mousavi, S. F., & Yazdankhah, A. (2010). Group decision making process for supplier selection with VIKOR under fuzzy environment. Expert Systems with Applications, 37(1), 24–30.

Sandberg, J., & Tsoukas, H. (2011). Grasping the Logic of Practice: Theorizing Through Practical Rationality. Academy of Management Review, 36(2), 338–360.

Sanders, N. R., Locke, A., Moore, C. B., & Autry, C. W. (2007). A Multidimensional Framework for Understanding Outsourcing Arrangements. Journal of Supply Chain Management, 43(4), 3–15.

Sarin, S. (1982). Buying decisions in four Indian organizations. Industrial Marketing Management, 11(1), 25–37.

Schoenherr, T. (2010). Outsourcing decisions in global supply chains: an exploratory multi-country survey. International Journal of Production Research, 48(2), 343–378.

Scott, G. (1995). The Use of Contracting in the Public Sector. Australian Journal of Public Administration, 55(3), 97–104.

Selviaridis, K., & Spring, M. (2007). Third party logistics: a literature review and research agenda. International Journal of Logistics Management, 18(1), 125–150. doi: 10.1108/09574090710748207

Shen, C.-Y., & Yu, K.-T. (2009). Enhancing the efficacy of supplier selection decision-making on the initial stage of new product development: A hybrid fuzzy approach considering the strategic and operational factors simultaneously. Expert Systems with Applications, 36(8), 11271–11281.

Shpilberg, D., Berez, S., Puryear, R., & Shah, S. (2007). Avoiding the Alignment Trap in Information Technology. Sloan Management Review, 49(1), 51–58.

Sobol, M. G., & Apte, U. (1995). Domestic and global outsourcing practices of America's most effective IS users. Journal of Information Technology, 10(4), 269–280.

Sohail, M. S. (2011). Sustaining competitiveness through information technology outsourcing: Evidence from an emerging nation. Competitiveness Review: An International Business Journal incorporating Journal of Global Competitiveness, 21(4), 369–381.

Soteriou, A. C., Hadjinicola, G. C., & Patsia, K. (1999). Assessing production and operations management related journals: the European perspective Journal of Operations Management, 17(2), 225–238.

Stafford, T. F. (2011). Active Priming of Cultural Stereotypes in Outsourcing Decision Making. Journal of Global Information Technology Management, 14(2), 27–47.

Stank, T. P., & Maltz, A. B. (1996). Some Propositions on Third Party Choice: Domestic Vs. International Logistics Providers. Journal of Marketing Theory and Practice, 4(2), 45–54.

Stanko, M. A., & Calantone, R. J. (2001). Controversy in innovation outsourcing research: review, synthesis and future directions. R&D Management, 41(1), 8–20.

Stevenson, M., & Spring, M. (2009). Supply chain flexibility: an inter-firm empirical study. International Journal of Operations & Production Management, 29(9), 946–971.

Strack, R., Baier, J., & Fahlander, A. (2008). Managing Demographic Risk. Harvard Business Review, 86(2), 119–128.

Su, N., Akkiraju, R., Nayak, N., & Goodwin, R. (2009). Shared Services Transformation: Conceptualization and Valuation from the Perspective of Real Options. Decision Sciences, 40(3), 381–402.

Subramoniam, R., Huisingh, D., & Chinnam, R. B. (2010). Aftermarket remanufacturing strategic planning decision-making framework: theory & practice. Journal of Cleaner Production, 18(16–17), 1575–1586.

Sutton, R. I., & Staw, B. M. (1995). What Theory is Not. Administrative Science Quarterly, 40(3), 371–384.

Tate, W. L., Ellram, L. M., Bals, L., & Hartmann, E. (2009). Offshore outsourcing of services: An evolutionary perspective. International Journal of Production Economics, 120(2), 512–524.

Tate, W. L., Ellram, L. M., & Brown, S. W. (2009). Offshore Outsourcing of Services: A Stakeholder Perspective. Journal of Service Research, 12(1), 56–72.

Teece, D. J. (1981). The Multinational Enterprise: Market Failure and Market Power Considerations. Sloan Management Review, 22(3), 3–17.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. Strategic Management Journal, 18(7), 509-533.

Teirlinck, P., Dumont, M., & Spithoven, A. (2010). Corporate decision-making in R&D outsourcing and the impact on internal R&D employment intensity. Industrial and Corporate Change, 19(6), 1741–1768.

Thouin, M. F., Hoffman, J. J., & Ford, E. W. (2009). IT outsourcing and firm-level performance: A transaction cost perspective. Information & Management, 46(8), 463–469.

Tiwana, A., & Bush, A. A. (2007). A Comparison of Transaction Cost, Agency, and Knowledge-Based Predictors of IT Outsourcing Decisions: A U.S.-Japan Cross-Cultural Field Study. Journal of Management Information Systems, 24(1), 259–300.

Tjader, Y. C., Shang, J. S., & Vargas, L. S. (2010). Offshore outsourcing decision making: A policy-maker's perspective. European Journal of Operational Research, 207(1), 434–444.

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. British Journal of Management, 14(3), 207–222.

Tsai, M.-C., Liao, C.-H., & Han, C.-S. (2008). Risk perception on logistics outsourcing of retail chains: model development and empirical verification in Taiwan. Supply Chain Management: An International Journal, 13(6), 415–424.

Tsai, W.-S., & Lai, C.-W. (2007). Outsourcing or capacity expansions: Application of activity-based costing model on joint products decisions. Computers & Operations Research, 34(12), 3666–3681.

Ulbrich, F. (2009). How interpersonal conflicts influence IS-sourcing decisions. Strategic Outsourcing: An International Journal, 2(3), 208–222.

van Damme, D. A., & Ploos van Amstel, M. J. (1996). Outsourcing Logistics Management Activities. The International Journal of Logistics Management, 7(2), 85–94.

van de Ven, A. H., Emmit, D. C., & Koenig, R. (1975). Frameworks for Inter-Organisational Analysis. In N. R. Neghandi (Ed.), Inter-Organisational Theory. Kent, OH: Kent State University Press.

Varadarajan, R. (2009). Outsourcing: Think more expansively. Journal of Business Research, 62(11), 1165–1172.

Venkatraman, N. (1997). Beyond Outsourcing: Managing IT Resources as a Value Center. Sloan Management Review, 38(3), 51–64.

Ventovuori, T. (2007). Analysis of supply models and FM service market trends in Finland – implications on sourcing decision-making. Journal of Facilities Management, 5(1), 37–48.

Verwaal, E., Commandeur, H., & Verbeke, W. (2009). Value Creation and Value Claiming in Strategic Outsourcing Decisions: A Resource Contingency Perspective. Journal of Management, 35(2), 420–444.

Vitharana, P., & Dharwadkar, R. (2007). Information Systems Outsourcing: Linking Transaction Cost and Institutional Theories. Communications of the Association for Information Systems, 20(Article 23).

Vokurka, R. J. (1996). The relative importance of journals used in operations management research A citation analysis. Journal of Operations Management, 14(4), 345–355.

Wadhwa, V., & Ravindran, A. R. (2007). Vendor Selection in Outsourcing. Computers & Operations Research, 34(12), 3725–3737.

Wang, J.-J., Lin, Z.-K., & Huang, H. (2008). A Decision Model for Information Systems Outsourcing: Using a Multicriteria Method. Journal of Service Science and Management, 1(1), 1–10.

Wang, J.-J., & Yang, D.-L. (2007). Using a hybrid multi-criteria decision aid method for information systems outsourcing. Computers & Operations Research, 34(12), 3691–3700.

Watjatrakul, B. (2005). Determinants of IS sourcing decisions: A comparative study of transaction cost theory versus the resource-based view. The Journal of Strategic Information Systems, 14(4), 389–415.

Weerakkody, V., & Irani, Z. (2010). A value and risk analysis of offshore outsourcing business models: an exploratory study. International Journal of Production Research, 48(2), 613–634.

Weick, K. E. (1995). What Theory is Not, Theorizing is. Administrative Science Quarterly, 40(3), 385–390.

Weimer, G., & Seuring, S. (2009). Performance measurement in business process outsourcing decisions: Insights from four case studies. Strategic Outsourcing: An International Journal, 2(3), 275–292.

Welborn, C. (2007). Using FMEA to Assess Outsourcing Risk. Quality Progress, 40(8), 17–22.

Wernerfelt, B. (1984). A Resource-Based View of the Firm. Strategic Management Journal, 5(2), 171–180.

Willcocks, L. (2010). The next step for the CEO: Moving IT-enabled services outsourcing to the strategic agenda. Strategic Outsourcing: An International Journal, 3(1), 62–66.

Willcocks, L., Fitzgerald, G., & Feeny, D. (1995). Outsourcing IT: The strategic implications. Long Range Planning, 28(5), 59–70.

Williams, S. (1965). Negotiating Investment in Emerging Countries. Harvard Business Review, 43(1), 89–99.

Williamson, O. E. (1975). Markets and hierarchies, analysis and antitrust implications: a study in the economics of internal organization. New York: Free Press.

Williamson, O. E. (1979). Transaction-Cost Economics: The Governance of Contractual Relations. Journal of Law and Economics, 22(2), 233–261.

Williamson, O. E. (1998). Transaction Cost Economics: How it Works; Where it is Headed. De Economist, 146(1), 23–58.
Wood, C. H., Kaufman, A., & Merenda, M. (1996). How Hadco Became a Problem-Solving Supplier. Sloan Management Review, 37(2), 77–88.
Wood, F. (1990). Factors Influencing Research Performance of University Academic Staff. Higher Education, 19(1), 81–100.
Woodside, A. G., & Samuel, D. M. (1981). Observations of Centralized Corporate Procurement. Industrial Marketing Management, 10(3), 191–205.
Xiao, T., Xia, Y., & Zhang, P. (2007). Strategic Outsourcing Decisions for Manufacturers that Produce Partially Substitutable Products in a Quantity-Setting Duopoly Situation. Decision Sciences, 38(1), 81–106.
Yang, D.-H., Kim, S., Nam, C., & Min, J.-W. (2007). Developing a decision model for business process outsourcing. Computers & Operations Research, 34(12), 3769–3778.
Yao, T., Jiang, B., Young, S. T., & Talluri, S. (2010). Outsourcing timing, contract selection, and negotiation. International Journal of Production Research, 48(2), 305–326.
Yoon, K. P., & Naadimuthu, G. (1994). A Make-or-Buy Decision Analysis Involving Imprecise Data. International Journal of Operations & Production Management, 14(2), 62–69.
Young, S. (2007). Outsourcing: Uncovering the Complexity of the Decision. International Public Management Journal, 10(3), 307–325.
Zhao, G., & Chen, W. (2010). A Stochastic Model for Pharmaceutical R&D Project Management in a Make-or-Buy Decision Setting. IEEE Transactions on Engineering Management, 57(3), 488–501.
Zirpoli, F., & Becker, M. C. (2011). What Happens When You Outsource Too Much? Sloan Management Review, 52(2), 59–64.